# THE LUX NIGHTCLUB 801 NORTH FEE STREET HELENA, MONTANA

ARCHITECT:

ECLIPSE ARCHITECTURE, P.L.L.C.

TRACY EGELINE, AIA 3530 CENTENNIAL DRIVE HELENA, MONTANA (406) 204-1288

MECHANICAL/ELECTRICAL ENGINEER: FOUR FRONT DESIGN INC RAY DAWES, PE

HELENA, MONTANA (406) 204-0736

### **GENERAL NOTES:**

### FRAMING:

I. HEM FIR/LARCH #2 OR BETTER FOR ALL FRAMING MEMBERS UNLESS OTHERWISE SPECIFIED.

2. FIRE BLOCK AT 10' MAXIMUM HORIZONTAL.

3. TYPICAL HEADER AT EXTERIOR WALLS AND BEARING WALLS SHALL BE (3)-2X10'S GLUED AND NAILED AND 1" RIGID INSULATION (UNLESS OTHERWISE NOTED ON PLANS).

7. PIPING OR DUCTWORK PLACED IN AN EXTERIOR OR INTERIOR LOAD-BEARING WALL NECESSITATING A CUTTING OF TOP PLATE BY MORE THAN 50% OF ITS WIDTH REQUIRES A GALVANIZED METAL TIE SHALL BE ATTACHED TO EACH PLATE AT EACH SIDE OF THE

OPENING AND FASTENED AS REQUIRED.

2. APPROVED NUMBERS OR ADDRESSES SHALL BE PROVIDED FOR ALL NEW BUILDINGS IN SUCH A POSITION AS TO BE PLAINLY VISIBLE



**ABBREVIATIONS** 

DIAMETER

ANCHOR BOLT

ADJUSTABLE

ARCHITECT/ARCHITECTURAL

CONCRETE MASONRY UNITS HR

NUMBER

ACOUST ACOUSTICAL

APPROX APPROXIMATE

BOARD

BLOCK

BEAM

CABINET

CEILING

COMBINATION

CONTINUOUS

COLD WATER

DOUBLE

DIAMETER

DIAGONAL

DIMENSION

DISPENSER

ELECTRICAL

DOWN

**EACH** 

EQUAL

EXISTING

EXTERIOR

CONSTRUCTION

DRINKING FOUNTAIN

BUILDING

ARCH

BD

BLDG

BLK

BM

CAB

CLG

CMU

COMB

CONST

CONT

CW

DBL

DF

DIA

DIAG

DIM

DISP

DN

EΑ

ELEC

EXT'G

EXT

EQ





FIRE CORE

FD

FEC

FIN

FFL

F.G.

FNDN

FOS

GEN

GYP

INSUL

MECH

MED

MIL

MIN

MISC

MTL

NIC NO

MISCELLANEOUS

NOT IN CONTRACT

METAL

NORTH

NUMBER

GAUGE

SYMBOL INDEX

# NEW NOTES

(#) DOORS

(#) WINDOWS

# WALL TAGS

(#) DEMOLITION NOTES

#\ SHEAR WALL SYMBOL

# # = ROOM NUMBER

(TA-#) TOILET ACCESSORY SYMBOL

	- / -		II—
FLOOR DRAIN	OD	OUTSIDE DIAMETER	
FIRE EXTINGUISHER CABINET	OSB	ORIENTED STRAND BOARD	<u> </u>
FINISH			ρ.
FINISHED FLOOR LEVEL	P-LAM	PLASTIC LAMINATE	-
FIBERGLASS	PL	PLATE	, 4.
FOUNDATION	PLY	PLYWOOD	
FACE OF STUD/STRUCTURE	PR	PAIR	
FLOOR/FEET	PREFIN	PREFINISHED	
	PSF	POUNDS/SQUARE FOOT	-

P-LAM PLASTIC LAMINA PL PLATE PLY PLYWOOD PR PAIR PREFIN PREFINISHED PSF POUNDS/SQUAR PSI POUNDS/SQUARE INCH

O/C ON CENTER

GENERAL PT POINT **GYPSUM** GLB GLUE LAMINATED BEAM R RISER/RADIUS GLU-LAM GLUE LAMINATED REF REFERENCE REFRIG REFRIGERATOR HORIZ HORIZONTAL REINF REINFORCEMENT HORSEPOWER REQ'D REQUIRED R.O. ROUGH OPENING

HOUR HEIGHT HVAC HEATING, VENTILATION \$ SOUTH AIR CONDITIONING SIM SIMILAR SHT SHEET HOT WATER SPEC SPECIFICATION SQ SQUARE INSIDE DIAMETER INCAN INCANDESCENT STD STANDARD SUSP SUSPENDED INSULATION

T TREAD LIN FT LINEAR FEET T¢G TONGUE AND GROOVE T.A. TOILET ACCESSORY MAXIMUM MECHANICAL T.O.W. TOP OF WALL ELEVATION MEDIUM T-STAT THERMOSTAT MILLIMETER TYP TYPICAL MINIMUM

WEST WITH W/ W/O WITHOUT W/C WATER CLOSET WD WOOD

PO BOX 9

# 4. NAILING FOR FRAMING MEMBERS SHALL COMPLY WITH TABLE 2304.10.1 OF 2018 IBC.

5. NAILING OF GYPSUM WALLBOARD SHALL COMPLY WITH TABLE 2508.6 OF 2018 IBC. 6. GALVANIZED ANCHORS FOR ALL EXTERIOR WORK. (I.E. DECK, FASCIA, TRIM, SOFFIT, SIDING, ETC).

8. ALL WOOD IN CONTACT TO CONCRETE SHALL BE PRESSURE TREATED.

### MISCELLANEOUS:

I. ALL WIRING, HEATING AND PLUMBING SHALL COMPLY WITH 2018 INTERNATIONAL MECHANICAL CODE, 2018 INTERNATIONAL FUEL GAS CODE, 2018 UNIFORM PLUMBING CODE, 2012 INTERNATIONAL ENERGY CONSERVATION CODE AND 2017 NATIONAL ELECTRICAL CODE AND SHALL BE INSTALLED BY LICENSED CONTRACTORS.

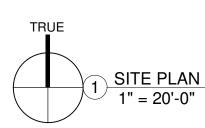
AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY.

3. CONTRACTOR SHALL FILL OUT AND AFFIX "ENERGY EFFICIENCY COMPONENTS" LABELING STICKER AS REQUIRED BY STATE OF



BUTTE AVE





# MATERIAL INDEX

EARTH	FRAMING WOOD	FOAM INSULATION
CONCRETE	BATT INSULATION	
BRICK OR CMU	RIGID INSULATION	

IGID INSULATION	5
	NU
	COV
	ADA
	A-I
_	A-2
CENTER LINE	MO.C
OVERHEAD EDGE	MO.
OVERHEAD EDGE	MO.2
— — — HIDDEN EDGE	MI.C
	MI.
4	MI.2
3 SHEET I ELEVATIONS	M1.3
#	M2.0
2	M2.
# = DETAIL NUMBER	M2.2
SHT = SHEET NUMBER	EO.C
_	EO.I
#	EO.2
SHEET # SECTIONS	EO.3
	EI.C
	E2.C
	F3 C

# REFER TO RECORD CARD FOR REQUIRED INSPECTIONS

**CITY OF HELENA** 

**Building Division** 

447-8437 or 447-8438

PROPERTY LINE

Think Asbestos!

INSPECT for Asbestos using a Montana accredited inspecto NOTIFY Montana's Department of Environmental Quality.

PERMIT Asbestos activities with DEQ. 406-444-5300 https://deq.mt.gov/cleanupandrec/programs/asbestos

It's the Law!

### IMPORTANT NOTICE No Building Shall Be Occupied Prior To Final Inspection

EAGLE'S MANOR

No building or structure shall be used or occupied until the Building Official has issued a certificate of occupancy Issuance of a Certificate of Occupancy shall not be nstrued as an approval of a violation of the provisions of this code or of other ordinances of The City of Helena Montana.

Final Inspections shall be called into the **Building Division 10 days prior to inspection.** 

### SHEET IUMBER SHEET NAME VER COVER ADA SHEET CODE PLAN RESTROOM PLANS MECHANICAL REQUIREMENTS & SPECIFICATIONS MECHANICAL GENERAL DETAILS MECHANICAL DETAILS AND SCHEDULES BASEMENT PLUMBING DEMOLITION PLAN MAIN FLOOR PLUMBING DEMOLITION PLAN BASEMENT PLUMBING REMODEL PLANS MAIN FLOOR PLUMBING REMODEL PLAN MAIN FLOOR HVAC DEMOLITION PLAN BASEMENT HVAC REMODEL PLAN MAIN FLOOR HVAC REMODEL PLAN ELECTRICAL LEGEND AND ABBREVIATIONS EXISTING ELECTRICAL PANEL SCHEDULES REMODELED ELECTRICAL PANEL SCHEDULES ONE-LINE DETAIL POWER PLANS

LIGHTING PLANS

FIRE ALARM PLANS

SHEET INDEX

ALLEY

LOT 16

EXISTING -

RETAINING WALL

LOT 15

PARKING TO

REMAIN AS IS -

BUILDING USE

NO CHANGE TO

**EXISTING** 

DUMPSTER

LOCATION

LOT 14

EXISTING AREA

EAGLE'S MANOR

RENTED BY

EXISTING FDC -NO PARKING ON

NORTH SIDE OF

BUILDING

**EXISTING** 

ACCESSIBLE

ENTRANCE AND

EXISTING EXIT

- NEW 350 SQ.

FT. CONCRETE

- NEW CONDENSER

- EXISTING

KITCHEN

→ PROPERTY

- EXISTING EXIT

BASEMENT

LINE

ENTRANCE

UNITS - SEE MECH

EAGLE'S

MANOR II

PATIO

LOT 12

BOLLARDS

EAGLE'S

LODGE #16

(TYP)

LOT 13

DRIVEWAY

PROPERTY LINE -

EXISTING CURB

### PROJECT INFORMATION GEO CODE: 05-1888-29-4-30-30-0000 LEGAL: NORTHERN PACIFIC SECOND ADDN, S29, T10 N, RO3 W, BLOCK 94, Lot 12, W37' \$ ALL LTS 13-16 COS #619969/T

ZONE: B-2 USE: TAVERN / CASINO (6 OR MORE VIDEO GAMING OR

GAMBLING DEVICES) LOT AREA: NO MINIMUM

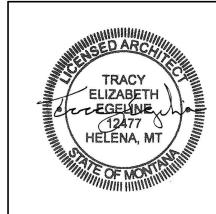
BUILDING HEIGHT: 75' MAX, NO CHANGE

LOT WIDTH: NO MINIMUM

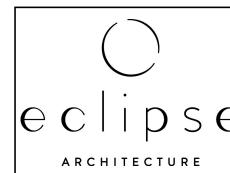
LOT COVERAGE: NO MINIMUM

FRONT LOT SETBACK: (W) NO MINIMUM, NO CHANGE REAR LOT SETBACK: (E) NO MINIMUM, NO CHANGE SIDE YARD SETBACKS: (N,S) NO MINIMUM, NO CHANGE

PARKING REQUIREMENTS: NO CHANGE PARKING LOT LANDSCAPING: NO CHANGE BICYCLE SPACE REQUIREMENTS: NO CHANGE STORMWATER: NO CHANGE



"LIMITED SERVICES"



3530 CENTENNIAL DRIVE HELENA, MONTANA 59601 (406) 204-1288

**NOTE:** Plans and specs shall not be changed, modified or altered without authorization from The City of Building

Division. This permit shall be null and void if work or construction authorized is not commenced within 180 days, or if construction or work is suspended or abandoned for a period of 180 days at any time after work has commenced.

The holder of this permit will be required to comply with all applicable provisions of the building code and city ordinances in effect even if the necessity for compliance is discovered after issuance of the

# APPROVED

**City of Helena Building Division** 

Approval of this document does not authorize the violation of any state, county, or city law or

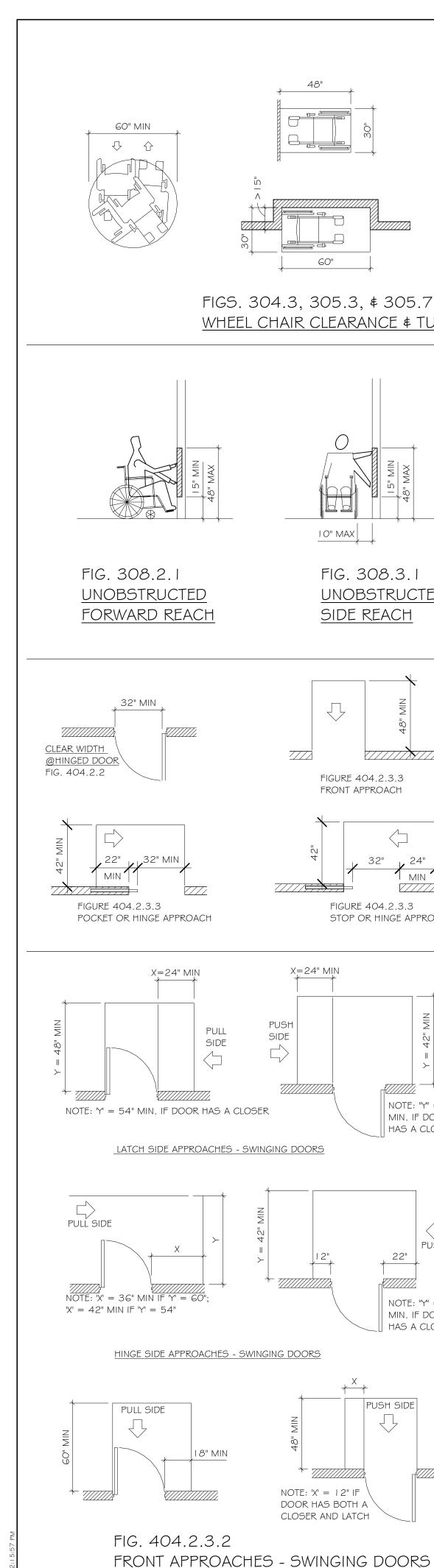
Permit Number: BCOM22-00033 E. Johnson 05/06/2022

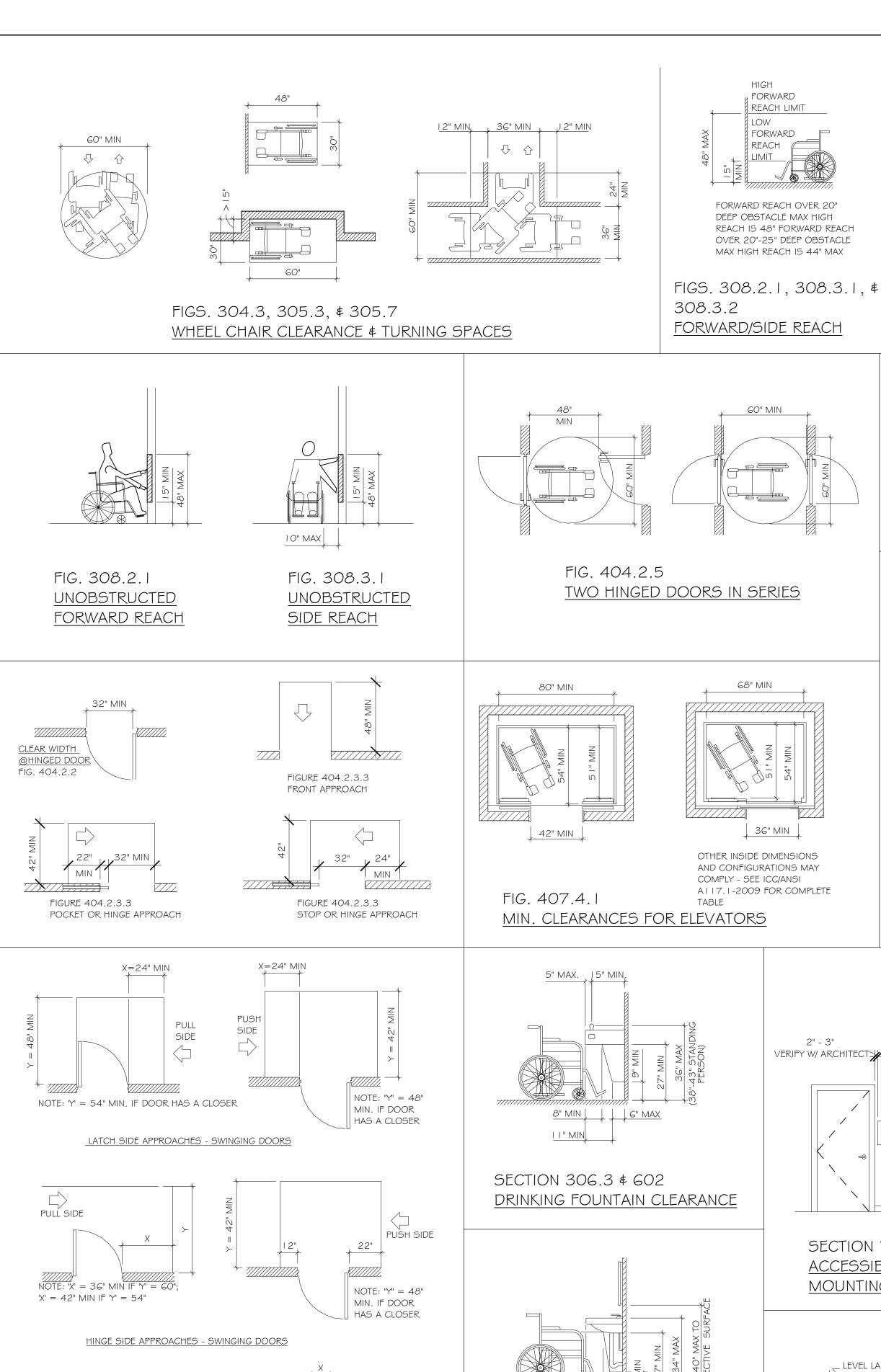
Remarks: Subject To Inspection IT IS UNLAWFUL TO OCCUPY THIS BUILDING PRIOR TO THE FINAL INSPECTION

> **PERMIT COPY** THIS SET OF APPROVED **PLANS TO BE ON JOB SITE** AT ALL TIMES

COVER PROJECT NUMBER: 22.013 04.13.2022 DRAWN BY: TEE CHECKED BY: TEE **REVISIONS:** COVER

Approver





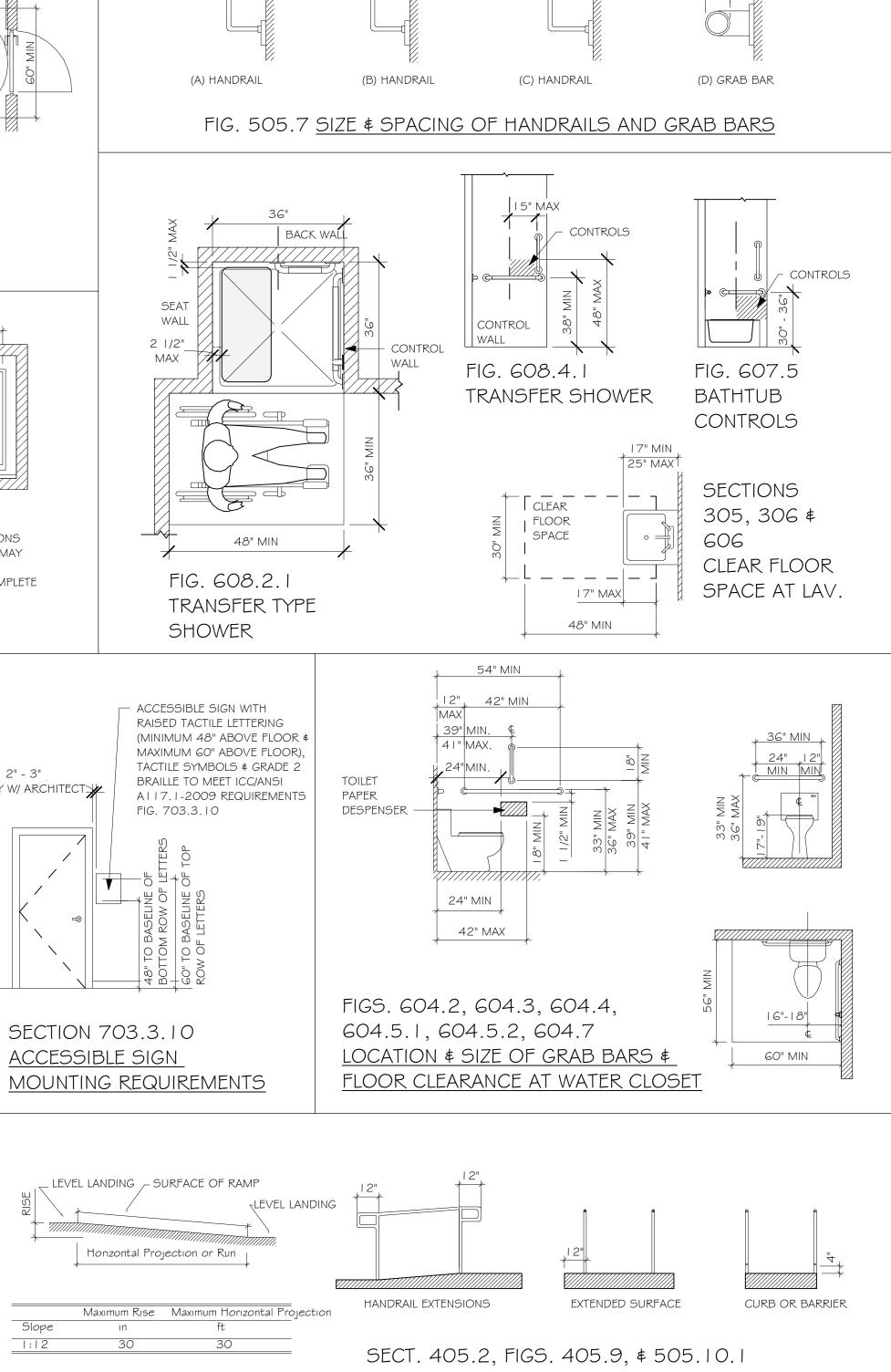
PUSH SIDE

NOTE: |X| = |2| | IF

DOOR HAS BOTH A

CLOSER AND LATCH





PROTECTION

FIGS. 403.5 \$ 403.5.1

ACCESSIBLE ROUTE

MAX

MAX

HIGHEST

SIDE

REACH

HIGHEST

SIDE

REACH

1 1/4" - 2"

/ 1 1/2" MIN

, FORWARD

REACH LIMIT

FORWARD

DEEP OBSTACLE MAX HIGH

REACH IS 48" FORWARD REACH

OVER 20"-25" DEEP OBSTACLE

MAX HIGH REACH IS 44" MAX

68" MIN

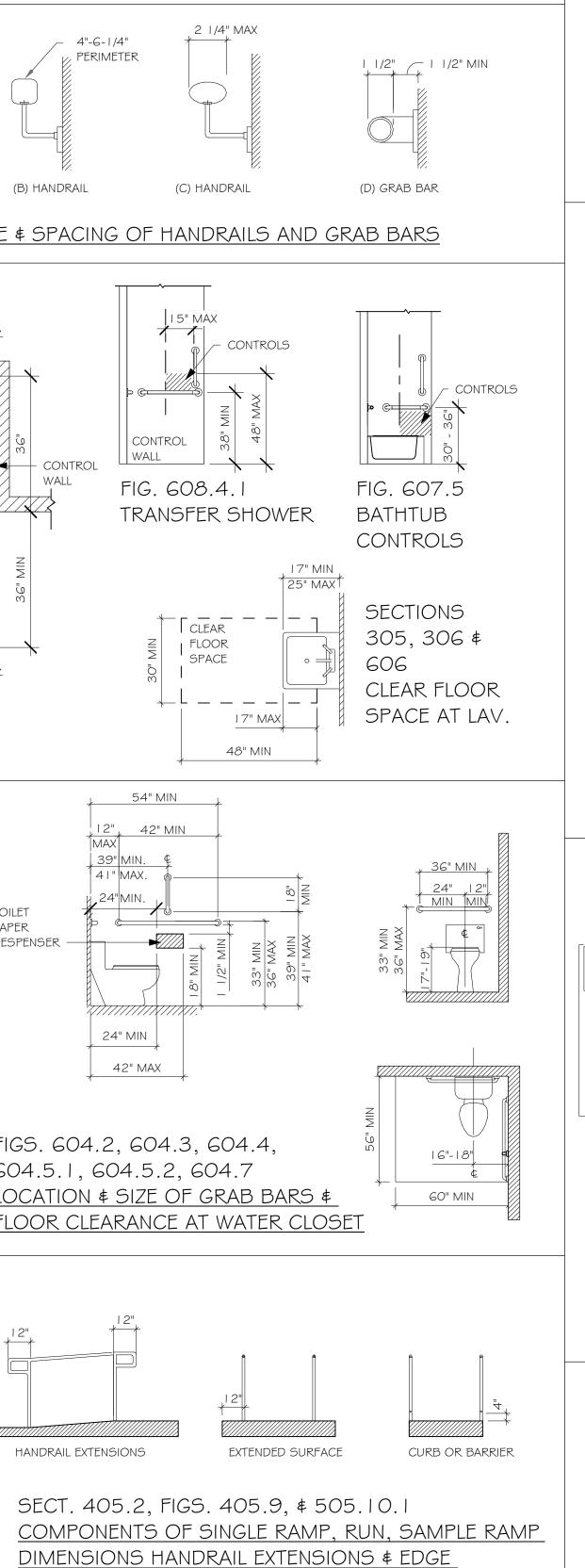
36" MIN

OTHER INSIDE DIMENSIONS

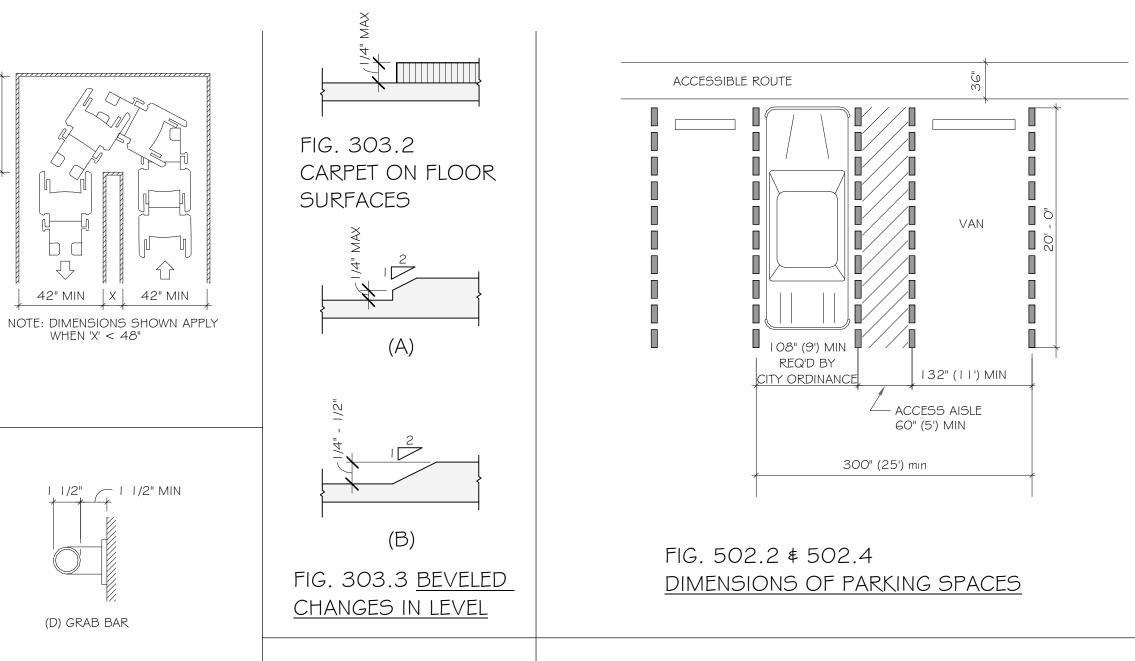
COMPLY - SEE ICC/ANSI A | | 7. || -2009 FOR COMPLETE

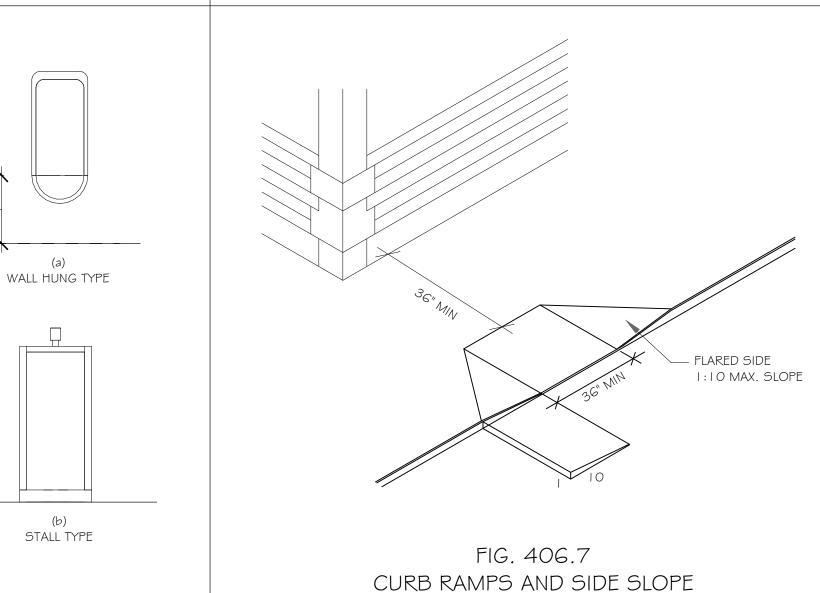
2" - 3"

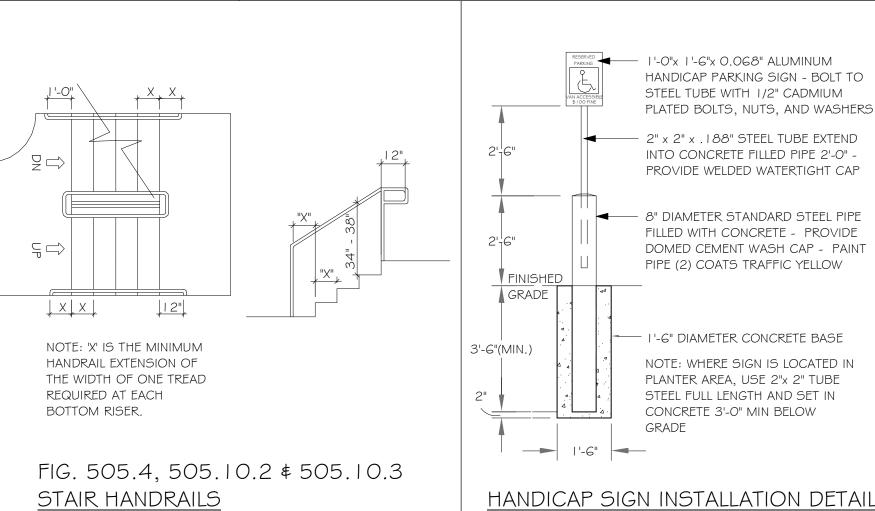
REACH



 $\Box$ 







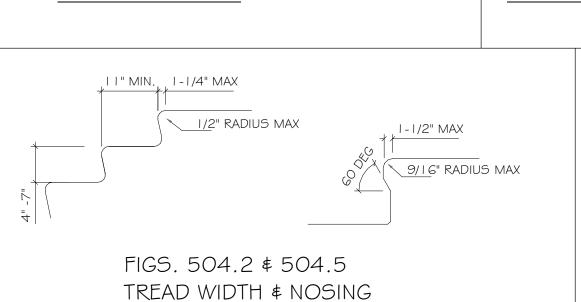
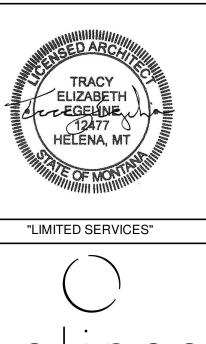


FIG. 605.2

HEIGHT OF URINALS

INFORMATION ON THIS SHEET IS MEANT TO REPRESENT COMMONLY REQUIRED INFORMATION. IT DOES NOT CONTAIN ALL REQUIREMENTS FOR ALL ADA COMPLIANCE REQUIREMENTS IN ICC/ANSI A-117.1-2009.



|pse|ARCHITECTURE 3530 CENTENNIAL DRIVE HELENA, MONTANA 59601

(406) 204-1288

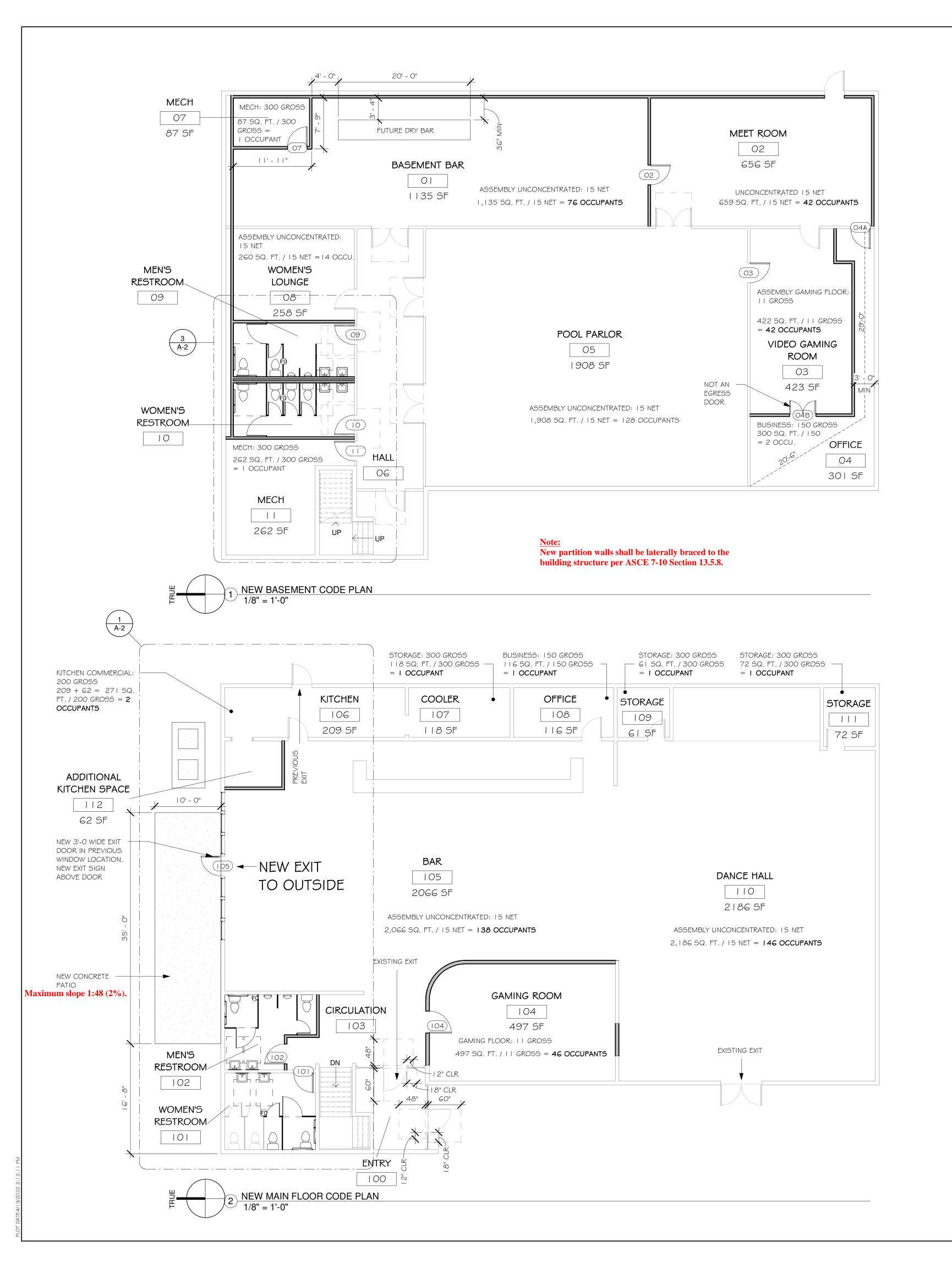
801 HEL

ADA SHEET **PERMIT COPY** THIS SET OF APPROVED PLANS TO BE ON JOB SITE

AT ALL TIMES 22.013 4/13/2022 DRAWN BY: CHECKED BY:

REVISIONS:

ADA



### IEBC 2018 CODE REVIEW

SPRINKLERED BUILDING

CONSTRUCTION TYPE # III-B

### SECTION 301 ADMINISTRATION

301.2 ALTERATION, ADDITION OR CHANGE OF OCCUPANCY PROJECT COMPLYING WITH 301.3.1

301.3.1 PRESCRIPTIVE COMPLIANCE METHOD ALTERATIONS, ADDITIONS AND CHANGES OF OCCUPANCY COMPLYING WITH CHAPTER 5 OF THIS CODE IN BUILDINGS COMPLYING WITH THE INTERNATIONAL FIRE CODE SHALL BE CONSIDERED IN COMPLIANCE WITH THE PROVISIONS OF THIS CODE.

### SECTION 305 ACCESSIBILITY FOR EXISTING BUILDINGS

305.4.1 PARTIAL CHANGE OF OCCUPANCY PROJECT SHALL COMPLY WITH SECTIONS 305.6, 305.7 AND 305.8

### 305.6 ALTERATIONS

A FACILITY THAT IS ALTERED SHALL COMPLY WITH THE APPLICABLE PROVISION IN CHAPTER II OF THE IBC, UNLESS TECHNICALLY INFEASIBLE. WHERE COMPLIANCE WITH THIS SECTION IS TECHNICALLY INFEASIBLE, THE ALTERATION SHALL PROVIDE ACCESS TO THE MAXIMUM EXTENT TECHNICALLY FEASIBLE.

I. THE ALTERED ELEMENT OR SPACE IS NOT REQUIRED TO BE ON AN ACCESSIBLE ROUTE, UNLESS REQUIRED BY SECTION 305.7.

2. ACCESSIBLE MEANS OF EGRESS REQUIRED BY CHAPTER 10 OF THE IBC ARE NOT REQUIRED TO BE PROVIDED IN EXISTING FACILITIES.

### 305.7 ALTERATIONS AFFECTING AN AREA CONTAINING A PRIMARY FUNCTION WHERE AN ALTERATION AFFECTS THE ACCESSIBILITY TO, OR CONTAINS AN AREA OF PRIMARY FUNCTION, THE ROUTE TO THE PRIMARY FUNCTION AREA SHALL BE

ACCESSIBLE. THE ACCESSIBLE ROUTE TO THE PRIMARY FUNCTION AREA SHALL INCLUDE TOILET FACILITIES AND DRINKING FOUNTAINS SERVING THE AREA OF PRIMARY FUNCTION.

EXCEPTIONS: THE COST OF THE ADDITIONAL IMPROVEMENT TO THE MAXIMUM OF 20 PERCENT OF THE COST OF THE ALTERATION AFFECTING THE AREA OF PRIMARY FUNCTION.

### 305.8 SCOPING FOR ALTERATIONS

305.8.1 ENTRANCES MAIN ENTRANCE IS ACCESSIBLE

### 305.8.10 TOILET ROOMS

WHERE IT IS TECHNICALLY INFEASIBLE TO ALTER EXISTING TOILET AND BATHING ROOMS TO BE ACCESSIBLE, AN ACCESSIBLE FAMILY OR ASSISTED-USE TOILET OR BATHING ROOM CONSTRUCTED IN ACCORDANCE WITH SECTION 1109.2.1 OF THE IBC IS PERMITTED. LOCATED ON SAME FLOOR AS EXISTING TOILET ROOM.

305.8.14 THRESHOLDS THE MAXIMUM HEIGHT OF THRESHOLDS AT DOORWAYS SHALL BE 3/4". SUCH THRESHOLDS SHALL HAVE BEVELED EDGES ON EACH SIDE.

### CHAPTER 5 PRESCRIPTIVE COMPLIANCE METHOD

501.2 FIRE-RESISTANCE RATING BUILDING EQUIPPED WITH FIRE SPRINKLER SYSTEM

### 502 ADDITIONS - N/A

503. I GENERAL ALL ALTERATION WILL COMPLY WITH THE IBC FOR NEW CONSTRUCTION

### 503.2 FLOOD HAZARD AREAS - N/A

### 503.3 - 503.13 STRUCTURAL COMPLIANCE

NO CHANGES TO EXISTING STRUCTURE OR BEARING WALLS IN THIS PROJECT.

### 506 CHANGE OF OCCUPANCY

506.1.1 CHANGE IN CHARACTER OF USE

A CHANGE OF OCCUPANCY WITH NO CHANGE OF OCCUPANCY CLASSIFICATION SHALL NOT BE MADE TO ANY STRUCTURE THAT WILL SUBJECT THE STRUCTURE TO ANY SPECIAL PROVISIONS OF THE APPLICABLE INTERNATIONAL CODES, WITHOUT APPROVAL OF THE CODE OFFICIAL. COMPLIANCE SHALL BE ONLY AS NECESSARY TO MEET THE SPECIFIC PROVISIONS AND IS NOT INTENDED TO REQUIRE THE ENTIRE BUILDING BE BROUGHT INTO COMPLIANCE.

### 506.3 STAIRWAYS

AN EXISTING STAIRWAY SHALL NOT BE REQUIRED TO COMPLY WITH THE REQUIREMENTS OF SECTION 1011 OF THE IBC WHERE THE EXISTING SPACE AND CONSTRUCTION DOES NOT ALLOW A REDUCTION IN PITCH AND SLOPE.

### 506.4 STRUCTURAL

506.4.1 LIVE LOADS CHANGE OF OCCUPANCY AREAS' TRIBUTARY AND DESIGN LIVES LOADS COMPLY WITH SECTION I 607 OF IBC - IF LOADS ARE LESS THAN 5% STRUCTURAL ELEMENTS CAN BE BASED ON PREVIOUSLY APPROVED LIVE LOADS 506.4.2 SNOW AND WIND LOADS - PROJECT NOT A HIGHER RISK CATEGORY 506.4.3 SEISMIC LOADS - PROJECT NOT A HIGHER RISK CATEGORY 507.4.4 ACCESS TO RISK CATEGORY IV - N/A

IBC 2012 REFERENCED SECTIONS

### CHAPTER 10 EGRESS

<u>BASEMENT OCCUPANT</u>	LOAD:	
BASEMENT BAR	1,236 SQ. FT. / 15 NET =	76 OCCUPANTS
MEETING ROOM	659 SQ. FT. / 15 NET =	42 OCCUPANTS
VIDEO GAMING ROOM	422 SQ. FT. /    GROSS =	42 OCCUPANTS
OFFICE	300 SQ. FT. / 150 =	2 OCCUPANTS
POOL PARLOR	1 908 SQ FT / 15 NFT =	128 OCCUPANTS

WOMEN'S LOUNGE 258 SQ. FT. / 15 NET = 17 OCCUPANTS 372 SQ. FT. / 300 GROSS = 2 OCCUPANT TOTAL BASEMENT OCCUPANTS = 5,155 s.f.309 OCCUPANTS

MAIN FLOOR OCCUPA	NT LOAD:	
MAIN FLOOR BAR	2,066 SQ. FT. / 15 NET =	138 OCCUPANTS
GAMING ROOM	497 SQ. FT. / 11 GROSS =	46 OCCUPANTS
DANCE HALL	2,186 SQ. FT. / 15 NET =	146 OCCUPANTS
STORAGE	72 SQ. FT. / 300 GROSS =	I OCCUPANT
STORAGE	61 SQ. FT. / 300 GROSS =	I OCCUPANT
OFFICE	116 SQ. FT. / 150 GROSS =	I OCCUPANT
COOLER	118 SQ. FT. / 300 GROSS =	I OCCUPANT
KITCHEN	27   SQ. FT. / 200 GROSS =	2 OCCUPANT
TOTAL BASEMENT OC	CUPANTS = 5,386  s.f.	336 OCCUPANTS

CHAPTER I I ACCESSIBILITY MAIN ENTRANCE ON GROUND FLOOR IS ACCESSIBLE

- MAIN FLOOR BATHROOMS TO BE MODIFIED FOR ACCESSIBILITY
- NEW ACCESSIBLE RESTROOMS IN BASEMENT NEW EMPLOYEE WORK AREA BEHIND NEW BASEMENT BAR WILL ALLOW ACCESSIBLE
- TABLES PROVIDED FOR ACCESSIBLE SERVICES FROM THE BAR, MAIN AND BASEMENT
- ACCESSIBLE ROUTE FROM MAIN ENTRANCE TO SERVICES ON MAIN FLOOR
- ACCESSIBLE ROUTE IN BASEMENT STAIR ARE NOT REQUIRED TO BE UPDATED OR IS AN ELEVATOR REQUIRED BETWEEN FLOORS.

### CHAPTER 29 PLUMBING FIXTURES

BASEMENT 308 OCCUPANTS 309 OCCUPANTS / 2 = 155 MEN \$ 155 WOMEN 155 / 40 = 3.875 (4 WATER CLOSETS)2 LAVATORIES: I PER 2 WATER CLOSETS

### MAIN FLOOR 327 OCCUPANTS

336 OCCUPANTS / 2 = 168 MEN \$ 168 WOMEN 168/40 = 4.2 (4 WATER CLOSETS) 2 LAVATORIES: I PER 2 WATER CLOSETS

			DOOR	SCHEDULE	
				HARDWARE	
MARK	WIDTH	HEIGHT	TYPE	GROUP	COMMENTS
02	3' - 0"	6' - 8"	SINGLE FLUSH	GROUP I	
03	3' - 0"	6' - 8"	SINGLE FLUSH	GROUP I	
04A	3' - 0"	6' - 8"	SINGLE FLUSH	GROUP 2	
04B	4' - 0"	6' - 8"	DOUBLE FLUSH	GROUP 3	
07	3' - 0"	6' - 8"	SINGLE FLUSH	GROUP 2	
09	3' - 0"	6' - 8"	SINGLE FLUSH	GROUP I	
10	3' - 0"	6' - 8"	SINGLE FLUSH	GROUP I	
1-1	3' - 0"	6' - 8"	SINGLE FLUSH	GROUP 2	
101	3' - 0"	7' - 0"	SINGLE FLUSH	GROUP I	
102	3' - 0"	7' - 0"	SINGLE FLUSH	GROUP I	
104	3' - 4"	7' - 0"	SINGLE FLUSH	GROUP I	
105	3' - 0"	7' - 0"	INSULATED EXTERIOR FULL LITE - SWINGING	GROUP 4	INSULATED DOOR

**DOOR NOTES:** 

I. ALL GLAZING IN DOOR TO BE TEMPERED GLASS, INSULATED @ EXTERIOR DOORS 2. VERIFY ALL DOOR HARDWARE W/ OWNER

### HARDWARE GROUPS: ALL HARDWARE TO BE LEVER TYPE

GROUP 1: PASSAGE LATCH SET, DOOR STOP

GROUP 2: PRIVACY LOCKSET, ALWAYS OPENABLE FROM INSIDE

GROUP 3: LATCH BOLT ON I LEAF WITH PRIVACY LOCKSET ON OTHER LEAF, ALWAYS OPENABLE FROM INSIDE GROUP 4: NEW KEYED DEADBOLT WITH PUSH/PULL AND ADA CLOSER, SIGNED "THIS DOOR MUST REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED".

### **GENERAL PLAN NOTES:**

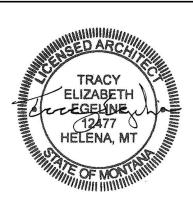
EXISTING CONSTRUCTION SHOWN GRAY SCALE (TYP)

2. DIMENSIONS ARE FROM FACE OF STUD, EXISTING WALL FINISH OR CENTER LINE OF DOOR/WINDOW OPENING.

3. TEMPERED GLASS (T.G.) TO BE PROVIDED AT ALL HAZARDOUS LOCATIONS AS DEFINED BY 2018 IBC SECTION 2406.4 - SEE PLANS AND WINDOW ELEVATIONS FOR MORE INFORMATION

4. WHERE NEW DOORS \$ WINDOWS - INSTALL NEW STUD/TRIMMER EACH SIDE OF OPENING \$ (2) 2X6 HEADERS (TYP)

THE STATE OF MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY OVERSEES THE PROPER ABATEMENT OF ASBESTOS AND THE PHONE NUMBER FOR ACCURATE INFORMATION IS (406) 444-2690. IF THIS PROJECT HAS ANY QUESTIONS AND CONCERNS YOU ARE TO CALL THE DEQ FOR PROPER INSTRUCTIONS.



"LIMITED SERVICES"

ARCHITECTURE

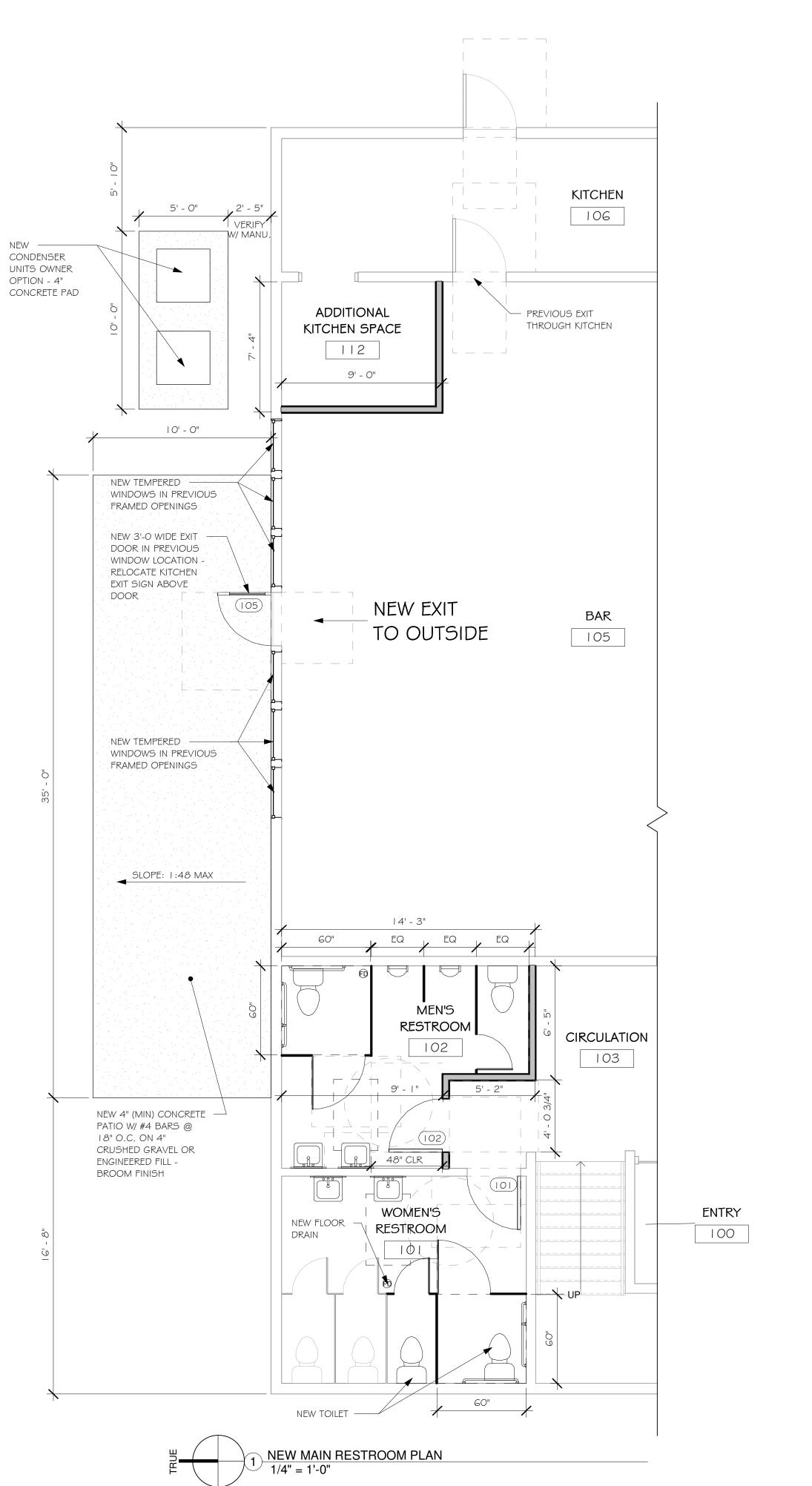
3530 CENTENNIAL DRIVE HELENA, MONTANA 59601 (406) 204-1288

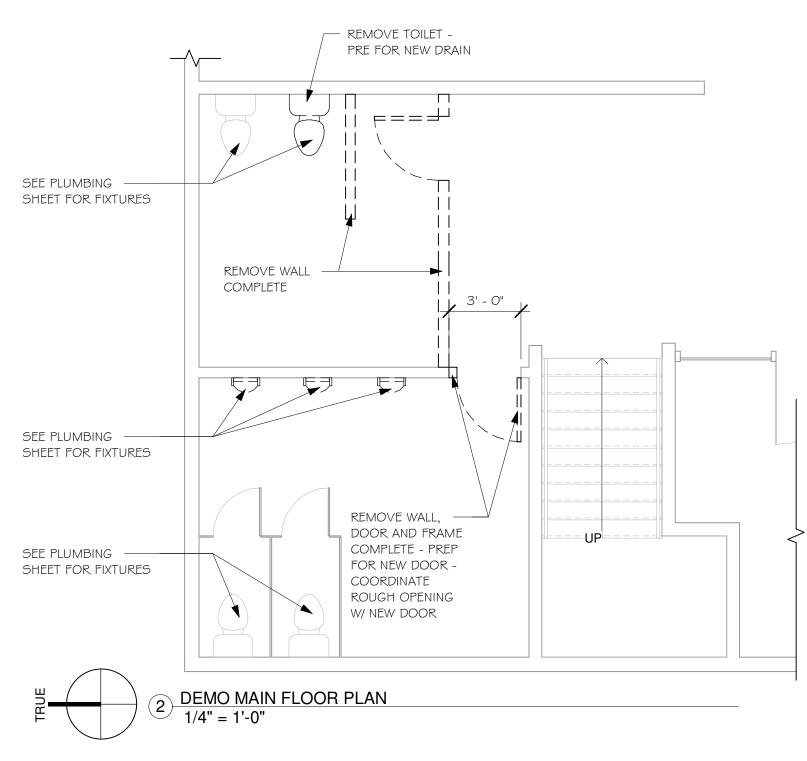
CODE PLAN **PERMIT COPY** THIS SET OF APPROVED PLANS TO BE ON JOB SITE

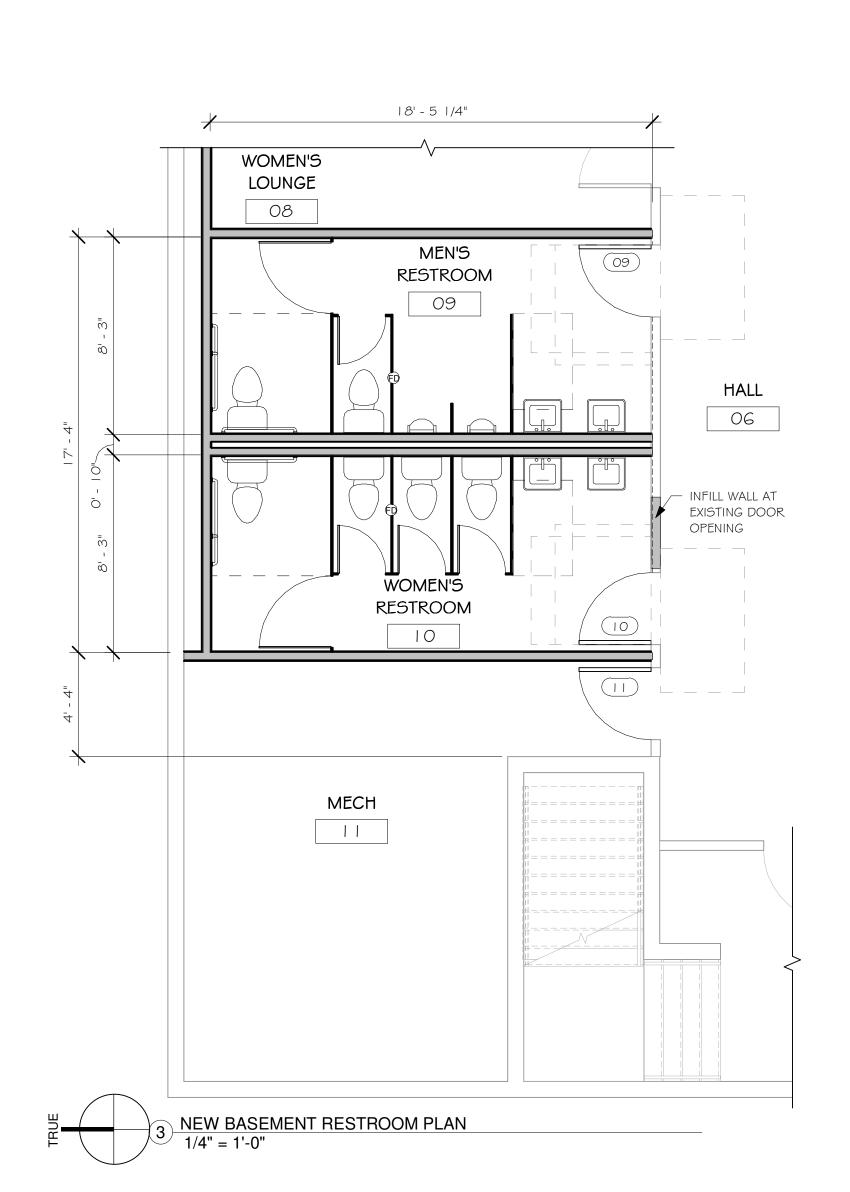
AT ALL TIMES

PROJECT NUMBER: 22.013 04.13.2022 DRAWN BY: CHECKED BY: **REVISIONS:** 

Approver





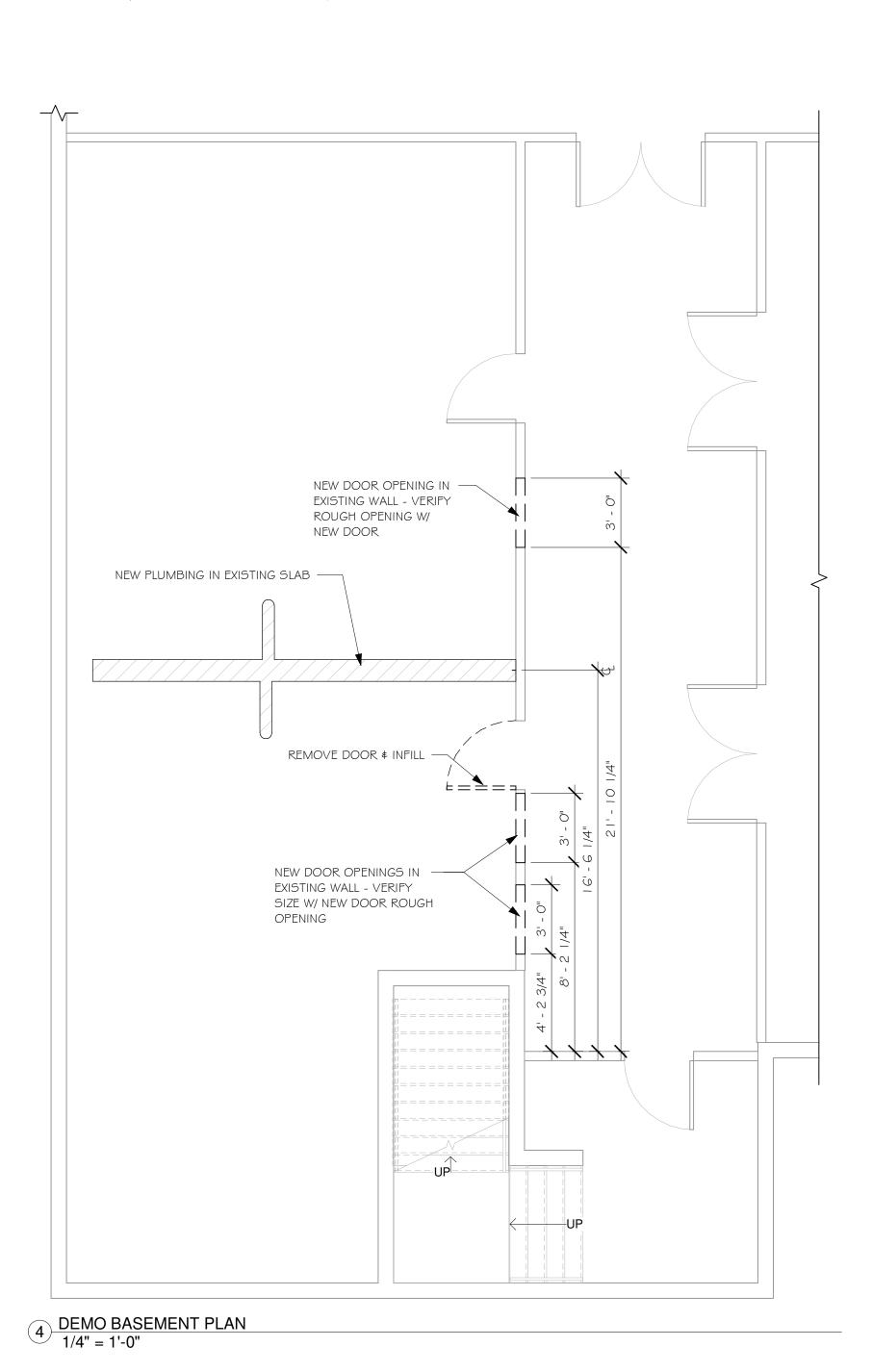


			DOOR	SCHEDULE	
MARK	WIDTH	HEIGHT	TYPE	HARDWARE GROUP	COMMENTS
02	3' - 0"	6' - 8"	SINGLE FLUSH	GROUP I	
03	3' - 0"	6' - 8"	SINGLE FLUSH	GROUP I	
04A	3' - 0"	6' - 8"	SINGLE FLUSH	GROUP 2	
04B	4' - 0"	6' - 8"	DOUBLE FLUSH	GROUP 3	
07	3' - 0"	6' - 8"	SINGLE FLUSH	GROUP 2	
09	3' - 0"	6' - 8"	SINGLE FLUSH	GROUP I	
10	3' - 0"	6' - 8"	SINGLE FLUSH	GROUP I	
1.1	3' - 0"	6' - 8"	SINGLE FLUSH	GROUP 2	
101	3' - 0"	7' - 0"	SINGLE FLUSH	GROUP I	
102	3' - 0"	7' - 0"	SINGLE FLUSH	GROUP I	
104	3' - 4"	7' - 0"	SINGLE FLUSH	GROUP I	
105	3' - 0"	7' - 0"	INSULATED EXTERIOR FULL LITE - SWINGING	GROUP 4	INSULATED DOOR

I. ALL GLAZING IN DOOR TO BE TEMPERED GLASS, INSULATED @ EXTERIOR DOORS 2. VERIFY ALL DOOR HARDWARE W/ OWNER

HARDWARE GROUPS: ALL HARDWARE TO BE LEVER TYPE GROUP 1: PASSAGE LATCH SET, DOOR STOP GROUP 2: PRIVACY LOCKSET, ALWAYS OPENABLE FROM INSIDE

GROUP 3: LATCH BOLT ON I LEAF WITH PRIVACY LOCKSET ON OTHER LEAF, ALWAYS OPENABLE FROM INSIDE GROUP 4: NEW KEYED DEADBOLT WITH PUSH/PULL AND ADA CLOSER, SIGNED "THIS DOOR MUST REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED".



ELIZABETH CIZATT S

"LIMITED SERVICES"

ARCHITECTURE

3530 CENTENNIAL DRIVE HELENA, MONTANA 59601

(406) 204-1288

RESTROOM PLANS **PERMIT COPY** THIS SET OF APPROVED PLANS TO BE ON JOB SITE **AT ALL TIMES** 

PROJECT NUMBER: 22.013 04.13.2022 DRAWN BY: CHECKED BY: TEE

**REVISIONS:** 

Approver

	HVAC & CONTI	ROL SYN	ЛBOLS
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
M	MOTOR	T	DUCT THERMOSTAT
	CENTRIFUGAL FAN	H	HUMIDISTAT, ROOM
T	ROOM OR ZONE THERMOSTAT	Н	HUMIDISTAT, DUCT
(SD)	SMOKE DETECTOR, DUCT	Р	PRESSURE SWITCH
$\times$ / $\times$ / $\times$ /	DAMPER, OPPOSED BLADE	Рпт	TEMPERATURE TRANSMITTER (SENSOR)
MD	MOTORIZED DAMPER ACTUATOR	PT/PS	PRESSURE TRANSMITTER OR SWITCH
FD	FIRE DAMPER	SP	DIFFERENTIAL PRESSURE CONTROLLER
SD	SMOKE DAMPER	BDD	BACKDRAFT DAMPER, GRAVITY
FSD	COMBINATION FIRE/SMOKE DAMPER	•	POINT OF CONNECTION SYMBOL
12"X10"	RECTANGULAR DUCT (REFER TO SYS)	8"Ø	ROUND DUCT-REFER TO SYSTEM SERVED
12"X10"	LINED RECTANGULAR DUCT	8"Ø	ROUND LINED OR DOUBLE WALL DUCT

## DUCT CONSTRUCTION SPECIFICATION

- RECTANGULAR DUCT SHALL BE GALVANIZED G60 OR G90 GRADE SHEETMETAL FORMED AND FABRICATED IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE FOR PRESSURE CLASS OF 2" WG MINIMUM. 26 GAGE METAL MINIMUM.
- ROUND DUCT SHALL BE GALVANIZED G60 OR G90 GRADE SHEETMETAL SPIRAL DUCTING FORMED IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE FOR PRESSURE CLASS OF 2" WG MINIMUM. DIE CAST OR WELDED ELBOWS AND FITTINGS MEETING THE SAME SPECIFICATION ALLOWED. AT CONTRACTOR OPTION, LONGITUDE LOCK SEAM (SNAPPY) DUCT AND ADJUSTABLE FITTINGS ARE ALLOWED ONLY ON RESTROOM EXHAUST. 26 GAGE METAL MINIMUM.
- SEAL ALL DUCT SEAMS IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE TABLE 1-2 SEAL CLASS B, MINIMUM.
- DUCT CONNECTOR SHALL BE STANDARD SLIP 'S' AND DRIVE CONNECTOR OF METAL GAGE NOT LESS THAN DUCT GAGE SPECIFIED IN #1. PROPRIETARY FLANGE CONNECTIONS SUCH AS WARD OR DUCT-MATE ARE
- SUPPORT ALL DUCTING IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS-METAL AND FLEXIBLE. NO EXCEPTIONS!
- DUCT LINER SHALL BE 1" OWENS CORNING 'LINA-COOUSTIC' BRAND, OR EQUAL. INSTALL ACCORDING TO MFR. RECOMMENDATIONS.
- INSULATE ALL EXTERIOR (OUTDOOR) DUCTING WITH RIGID 2" FIBERGLASS INSULATION WITH SEALED
- 8. ALL RECTANGULAR ELBOWS TO CONTAIN SINGLE OR DOUBLE TURNING VEIN.

# DUCT INSULATION/LINER REQUIREMENTS

- INSULATED DUCTWORK INCLUDES (2" THICKNESS/R-5 VALUE):
- ALL CONCEALED SUPPLY DUCT INSTALLED NEW ON THIS PROJECT. ALL CONCEALED OUTSIDE AIR DUCT.
- ALL EXHAUST DUCT LOCATED BETWEEN THE BACKDRAFT DAMPER OF FAN AND BUILDING TERMINAL OUTLET.

### <u>.INED DUCTWORK INCLUDES (1" THICKNESS MINIMUM):</u> ALL RETURN DUCT/PLENUM.

- ALL TRANSFER AIR DUCT.
- TEST & BALANCE INSTRUCTIONS:
- BALANCER SHALL BE PERFORMED BY THE CONRTACTOR. THE BALANCING CONTRACTOR SHALL PERFORM AIR AND WATER BALANCE IN ACCORDANCE WITH MINIMUM NEBB GUIDELINES AND REPORT THE FOLLOWING DATA:
- 1. OPERATING AMPERAGE MEASURED UNDER FULL LOAD.
- 2. MEASURED VOLTAGE AT EACH UNIT. 3. ESP OF EACH AIR MOVING EQUIPMENT.
- 4. TOTAL MEASURED AND ADJUSTED CFM RETURN, SUPPLY, OUTSIDE AIR, AND EXHAUST.
- 5. INITIAL PRESSURE DROP ACROSS FILTERS. 6. GPM AND HEAD OF PUMPS.
- 7. CFM GRILLES, REGISTERS, AND DIFFUSERS.
- 8. INITIAL AND FINAL OUTDOOR AIR CFM.
- THE FOLLOWING PIECES OF EQUIPMENT SHALL RECEIVE TESTING & BALANCING TREATMENT:
- A. ALL NEW GRD AS SCHEDULED.
- B. F-1, 2. UH-1 C. EF-1, 2. MUA-1
- A HANDWRITTEN REPORT ON REDLINE CONDITIONS, BALANCING INFORMATION. AND INFORMATION REQUESTED ABOVE SHALL BE SUBMITTED TO THE ENGINEER.

	SECTION THROUGH RETURN OR EXHAUST AIR
	SECTION THROUGH SUPPLY OR OUTSIDE AIR DUCT
	SUPPLY, RETURN, EXHAUST, OR OUTSIDE AIR DUCT
[ ] AD	ACCESS DOOR (BOTTOM OR SIDE)
	ACOUSTICALLY LINED DUCT
FD	DAMPER, FIRE
BD	DAMPER, MANUAL VOLUME
	INCLINED DROP IN DIRECTION OF ARROW
α	INCLINED RISE IN DIRECTION OF ARROW
<b>I</b>	TRANSITION, RECTANGULAR TO ROUND
<u></u>	FLEXIBLE DUCT
OR	FLEXIBLE DOCT
	TRANSITION OR OFFSETTING TRANSITION
	TRANSITION, RECTANGULAR
	HIGH EFFICIENCY TAKEOFF WITH DAMPER
	CEILING SUPPLY AIR DIFFUSER ##
-	SIDEWALL SUPPLY AIR REGISTER ##
	ELBOW TURNED DOWN
	ELBOW TURNED UP
	ELBOW, RADIUS TYPE
<u></u> €	ELBOW, SQUARE OR RECTANGULAR TYPE WITH 22 GA SINGLE TURNING VANES
	RETURN OR EXHAUST AIR DUCT
	CEILING RETURN AIR REGISTER ##
<b>-</b> -	SIDEWALL RETURN AIR REGISTER ##
	OPEN END DUCT
	FLEXIBLE CONNECTION
<u> </u>	

**DUCTWORK SYMBOLS KEY** 

SYMBOL	PLUMBING/PI	SYMBOL	DESCRIPTION
—————	GATE, BALL, OR FUEL SOV VALVE	—II—II—	UNION, THREADED OR FLANGED
	GLOBE VALVE	■ WH	WATER HAMMER ARRESTOR
♥	GAS COCK		FLOOR DRAIN
——,	PLUG VALVE		FLOOR SINK
S	SOLENOID VALVE	<u> </u>	FLOOR CLEANOUT, INT. OR EXT.
PRV	PRESSURE REDUCING VALVE	CO	WALL CLEANOUT
	CHECK VALVE		1/4 TURN BOILER DRAIN W/CAP
***	PRESS./TEMP. RELIEF VALVE	<del> +</del>	HOSE BIBB, INTERIOR OR EXTERIOR
₩ <u>₩</u> ₩	RPP BACKFLOW PREVENTOR	Д н н	90 DEGREE ELBOW (UP, DOWN, PLAN)
M V V M	DOUBLE CHECK BACKFLOW PREV.	요 표 표	TEE FITTING (UP, DOWN, PLAN)
	WATER METER	ightharpoons	WYE (PLAN VIEW)
<u> </u>	PRESSURE REDUCING VALVE	ľ	COMBINATION WYE & 1/8 BEND
P	THERMOMETER WITH WELL	M	WYE (VERTICAL) WITH 1/4 BEND
Ŷ	PRESSURE GAGE WITH SHUTOFF	<u>\</u> 1	LONG RADIUS SAN. SEWER FITTING
Р	PRESSURE SWITCH	LABV	AUTOMATIC BALANCING VALVE
$\bigcirc$	PUMP	MBV	MANUAL BALANCING VALVE
	CONTROL VALVE, 2-WAY		DIRECTION OF FLOW
	CONTROL VALVE, 3-WAY		STRAINER, CAST IRON OR BRONZE
	NG OR LP EQUIPMENT REGULATOR	— <del>   </del>	STRAINER WITH BLOW DOWN & PLUG
——  <b> </b>	FLEXIBLE PIPE CONNECTOR	—————	EXPANSION VALVE
S	STEAM TRAP		AUTO AIR VENT, EXTEND TO DRAIN
•	POINT OF CONNECTION SYMBOL	FS OR F	FLOW SWITCH

## BASIC MECHANICAL REQUIREMENTS

FURNISH ALL LABOR AND MATERIALS AND PERFORM ALL OPERATIONS NECESSARY FOR THE INSTALLATION OF COMPLETE AND OPERATING MECHANICAL SYSTEMS SUBJECT TO THE CONDITIONS OF THE CONTRACT. PROVIDE SATISFACTORY OPERATION OF ALL EQUIPMENT AND CONTROLS TO THE ARCHITECT/ENGINEER UPON REQUEST.

ALL MATERIALS SHALL BE NEW. SUBSTITUTIONS SHALL BE APPROVED BY OWNER AND/OR ENGINEER.

VISIT THE PREMISES BEFORE SUBMITTING BID AS NO CHANGE ORDERS WILL BE ALLOWED FOR LACK OF KNOWLEDGE OF EXISTING CONDITIONS.

COORDINATE AND ORDER THE PROGRESS OF WORK TO CONFORM TO THE PROJECT SCHEDULE AND THE PROGRESS OF THE WORK OF THE OTHER TRADES.

MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND BECAUSE OF THE SMALL SCALE, IT IS NOT POSSIBLE TO INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. VERIFY ALL SPACE REQUIREMENTS, COORDINATING WITH OTHER TRADES, AND INSTALL THE SYSTEMS IN THE SPACE PROVIDED WITHOUT EXTRA CHARGES TO THE

PERFORM WORK IN ACCORDANCE WITH GOOD COMMERCIAL PRACTICE. THE GOOD APPEARANCE OF THE FINISHED WORK SHALL BE OF EQUAL IMPORTANCE WITH ITS MECHANICAL EFFICIENCY AND INTENT. THE OWNER MAY REJECT WORK IF WORKMANSHIP AND APPEARANCE ARE NOT SATISFACTORY.

INSTALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE, OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AND ORDINANCES. COMPLY WITH REQUIREMENTS OF THE UTILITY COMPANIES. IN THE CASE OF DIFFERENCES BETWEEN THESE REQUIREMENTS AND ORDINANCES, THE MOST STRINGENT SHALL GOVERN. CALL FOR INSPECTIONS REQUIRED BY LOCAL BUILDING INSPECTION AUTHORITY.

PLANS AND SPECIFICATIONS GO HAND IN HAND. WHAT IS REQUIRED IN ONE IS REQUIRED IN BOTH. WHERE CONFLICTS BETWEEN SPECIFICATIONS AND PLANS EXIST, THE MOST STRINGENT REQUIREMENTS SHALL APPLY.

MECHANICAL PLANS SUPERCEDE ARCHITECTURAL PLANS. BACKGROUND FLOOR PLANS USED FOR MECHANICAL DRAWINGS MAY SHOW DIFFERENT THAN THE FINAL ARCHITECTURAL LAYOUT. REFER TO ARCHITECTURAL DRAWINGS FOR ACTUAL DIMENSIONS AND LAYOUT PLACEMENTS FOR SPACE CONDITIONS.

MECHANICAL DETAILS MAY OR MAY NOT BE DIRECTLY REFERENCED. ALL DETAILS SHOWN ARE TO BE USED FOR BASIS OF INSTALLATION IN ALL CASES, IN COORDINATED EFFORT WITH MANUFACTURERS INSTALLATION RECOMMENDATIONS.

MECHANICAL SHEETS ARE NOT INTENDED TO SPECIFICALLY BE TRADE SPECIFIC TO MECHANICAL INSTALLATION WORK. ALL MECHANICAL AND ELECTRICAL TRADES ARE RESPONSIBLE FOR FAMILIARIZING THEMSELVES AND INCLUDING A COMPLETE PACKAGE WITHIN THEIR OFFER FOR A COMPLETE SYSTEM.

AT COMPLETION OF WORK, DELIVER COMPLETED PROJECT RECORD DOCUMENTS MARKED WITH FIELD CHANGES TO OWNER.

PROVIDE A WRITTEN WARRANTY TO THE OWNER COVERING THE ENTIRE MECHANICAL WORK TO BE FREE FROM DEFECTIVE MATERIALS, EQUIPMENT AND WORKMANSHIP FOR A PERIOD OF 1 YEAR AFTER DATE OF ACCEPTANCE.

CLEAN EXPOSED SURFACES OF FURNACES, HOT WATER HEATERS, PLUMBING FIXTURES AND OTHER EXPOSED ITEMS OF GREASE, DIRT OR OTHER FOREIGN MATERIAL. REMOVE RUBBISH AND DEBRIS RESULTING FROM THE OPERATIONS AND LEAVE EQUIPMENT SPACES CLEAN AND READY FOR USE.

MAINTAIN ALL CEILING, FLOOR AND WALL FIRE AND SMOKE PROTECTION RATINGS. SEAL ALL CONDUIT AND ENCLOSURE PENETRATIONS TO COMPLY WITH UL ASSEMBLY AND BUILDING CODE REQUIREMENTS. ALL SEALANTS AND CONSTRUCTIONS SHALL BE APPROVED BY OWNER PRIOR TO APPLICATION. ALL OPENINGS SHALL BE SEALED DAILY.

CONTRACT DRAWINGS FOR MECHANICAL WORK ARE IN PART DIAGRAMMATIC, INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE GENERAL ARRANGEMENT OF EQUIPMENT, CONDUITS, AND APPROXIMATE SIZES AND LOCATIONS OF EQUIPMENT AND OUTLETS. MECHANICAL/ELECTRICAL TRADES SHALL FOLLOW THESE DRAWINGS IN LAYING OUT THEIR WORK, CONSULT GENERAL CONSTRUCTION DRAWINGS TO FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THEIR WORK, AND SHALL VERIFY SPACES IN WHICH THEIR WORK WILL BE INSTALLED. COORDINATE WORK WITH OTHER TRADES AND AS PROJECT CONDITIONS REASONABLY REQUIRE WITHOUT EXTRA COSTS TO OWNER.

ALL DUCTWORK DIMENSIONS, AS SHOWN ON THE DRAWINGS, ARE INTERNAL CLEAR DIMENSIONS AND DUCT SIZE SHALL BE INCREASED TO COMPENSATE FOR DUCT LINING THICKNESS.

PROVIDE ALL 90 DEGREE SQUARE ELBOWS WITH SINGLE RADIUS TURNING VANES UNLESS OTHERWISE INDICATED.

COORDINATE DIFFUSER, REGISTER, AND GRILLE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS, LIGHTING, AND OTHER CEILING ITEMS AND MAKE DUCT MODIFICATIONS TO SUIT.

AT CONTRATORS OPTION, FLEXIBLE DUCT MAY BE USED TO CONNECT SUPPLY REGISTERS AND DIFFUSERS ON THIS PROJECT ONLY. RUNS OF FLEXIBLE DUCT SHALL NOT EXCEED 5 FEET, UNLESS SPECIFICALLY SHOWN ON DRAWING.

ALL DUCTWORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. OFFSETS IN DUCTS, INCLUDING DIVIDED DUCTS AND TRANSITIONS AROUND OBSTRUCTIONS, SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

MECHANICAL SYSTEMS SHALL COMPLY WITH INTERNATIONAL MECHANICAL CODE VER 2018 AND INTERNATIONAL ENERGY CODE

PLUMBING/PIPING SYSTEMS SHALL COMPLY WITH INTERNATIONAL FUEL GAS CODE VER 2018 AND UNIFORM PLUMBING CODE VER 2018.

LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE EXACT LOCATIONS IN THE FIELD (NOT ALL UTILITIES ARE SHOWN).

REGULATORY AND CODE REQUIREMENTS APPLY FOR AND PAY FOR ALL PERMITS, FEES, LICENSES AND INSPECTIONS. ALL WORK IS SUBJECT TO APPROVAL BY THE CODE OFFICIAL AND ENGINEER. ALL CORRECTIONS SHALL BE MADE WITHOUT EXTRA COSTS TO OWNER.

SHEET #

SHEET TITLE

M 0.0 MECHANICAL REQUIREMENTS & SPECIFICATIONS

M 0.1 MECHANICAL GENERAL DETAILS

M 0.2 MECHANICAL SCHEDULES AND DETAILS

M 1.2 BASEMENT PLUMBING REMODEL PLANS M 1.3 MAIN FLOOR PLUMBING REMODEL PLAN

M 2.0 MAIN FLOOR HVAC DEMOLITION PLAN

M 2.1 BASESEMENT HVAC REMODEL PLAN M 2.2 MAIN FLOOR HVAC REMODEL PLAN

M 1.0 BASEMENT PLUMBING DEMOLITION PLAN M 1.1 MAIN FLOOR PLUMBING DEMOLITION PLAN



# CALL BEFORE YOU DIG

MEP ABBREVIATIONS ABOVE FINISHED FLOOR ABOVE FINISHED GRADE AFG A/G ABOVE GRADE B/G **BELOW GRADE** COND CONDENSATE DRAIN CPCI CONTRACTOR PROVIDED CONTRACTOR INSTALLED CPOI CONTRACTOR PROVIDED OWNER INSTALLED CWR CHILLED (HYDRONIC) WATER RETURN CHILLED (HYDRONIC) WATER SUPPLY CWS DCW DOMESTIC (POTABLE) COLD WATER DHW DOMESTIC (POTABLE) HOT WATER DHWR DOMESTIC HOT WATER RETURN **ENTERING AIR ELECTRICAL CONTRACTOR** EXHAUST GREASE SANITARY SEWER G-SAN GENERAL CONTRACTOR HVAC CONTRACTOR HC HWR HOT (HYDRONIC) WATER RETURN HWS HOT (HYDRONIC) WATER SUPPLY HIGH PRESSURE IJS IN JOIST SPACE

PROPANE GAS MIXED AIR MECHANICAL CONTRACTOR MEDIUM PRESSURE MPG MEDIUM PRESSURE NATURAL GAS NATURAL GAS OUTSIDE/OUTDOOR AIR OPCI OWNER PROVIDED CONTRACTOR INSTALLED OPOI OWNER PROVIDED OWNER INSTALLED PLUMBING CONTRACTOR RETURN AIR

LEAVING AIR

RECT RECTANGULAR SUPPLY AIR SCR STEAM CONDENSATE RETURN SAN SANITARY SEWER STORM WATER SEWER STM STEAM

SYSTEM

SYS

TEMP

VENT

TEMPERATURE

### GENERAL CONSTRUCTION NOTES

ALL WORK PERFORMED IN CONJUNCTION WITH THESE DRAWINGS SHALL MEET ALL CURRENT APPLICABLE BUILDING AND ENERGY CODES.

ALL WORK PERFORMED IN CONJUNCTION WITH THESE DRAWINGS IS SUBJECT TO APPROVAL BY THE AUTHORITY HAVING JURISDICTION (CODE OFFICIAL).

ALL ROOF PENETRATIONS SHALL BE PATCHED AND SEALED, WITH WARRANTY FROM BUILDING ROOFING CONTRACTOR.

THIS SET OF DOCUMENTS IS INTENDED FOR AHJ REVIEW AND SHALL BE CONSIDERED AS CONSTRUCTION DOCUMENTS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE ALL CONDITIONS, EXISTING AND/OR NEW, OF THE SITE AS WELL AS LOCATIONS, QUANTITIES. TYPE AND STYLE OF ALL PRODUCTS PROVIDED, WITH OWNER, PRIOR TO ORDERING OR INSTALLING.

**PERMIT COPY** THIS SET OF APPROVED PLANS TO BE ON JOB SITE AT ALL TIMES

THE LUX NIGHTCLUB 801 NORTH FEE STREET

HELENA, MONTANA 59601 Project Number:

Issued for Permit:

MECHANICAL REQUIREMENTS & SPECIFICATIONS

22.2620.M01

4/8/2022

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PIPE	E MATERIAL AND INSTALLAT	TION	REQUIREN	<u> </u>	ΓS	
SERVICE OR SYSTEM	MATERIAL	PIPE SIZE	INSULATION THICKNESS	PIPE SIZE	PRESSURE TEST*	NOTES:
DOMESTIC COLD WATER	TYPE L COPPER, VIEGA PEX MODEL V5001 (INSIDE WALLS ONLY), PRO-PRESS	ALL	1/2" FIBERGLASS	ALL	100 PSI AIR-30 MIN	1,2,3
DOMESTIC HOT WATER (100-180 DEG F)	TYPE L COPPER, VIEGA PEX MODEL V5002 (INSIDE WALLS ONLY), PRO-PRESS	ALL	1" FIBERGLASS	ALL	100 PSI AIR-30 MIN	1,2,3
NATURAL GAS	BLACK T&C WITH BMI FITTINGS WELDED STEEL SCH 40	<=2" >2"	NONE	N/A	40 PSI AIR-60 MIN	2
SANITARY SEWER U/G	SCHEDULE 40 PVC DWV, HUBLESS CAST IRON	ALL	NONE	N/A	20 PSI AIR-60 MIN	
SANITARY SEWER A/G	SCHEDULE 40 PVC DWV, HUBLESS CAST IRON	ALL	NONE	N/A	20 PSI AIR-60 MIN	2
CONDENSATE	SCHEDULE 40 PVC DWV (FLEXIBLE TUBING NOT ALLOWED)	ALL	NONE	N/A	VISUAL INSPECTION	

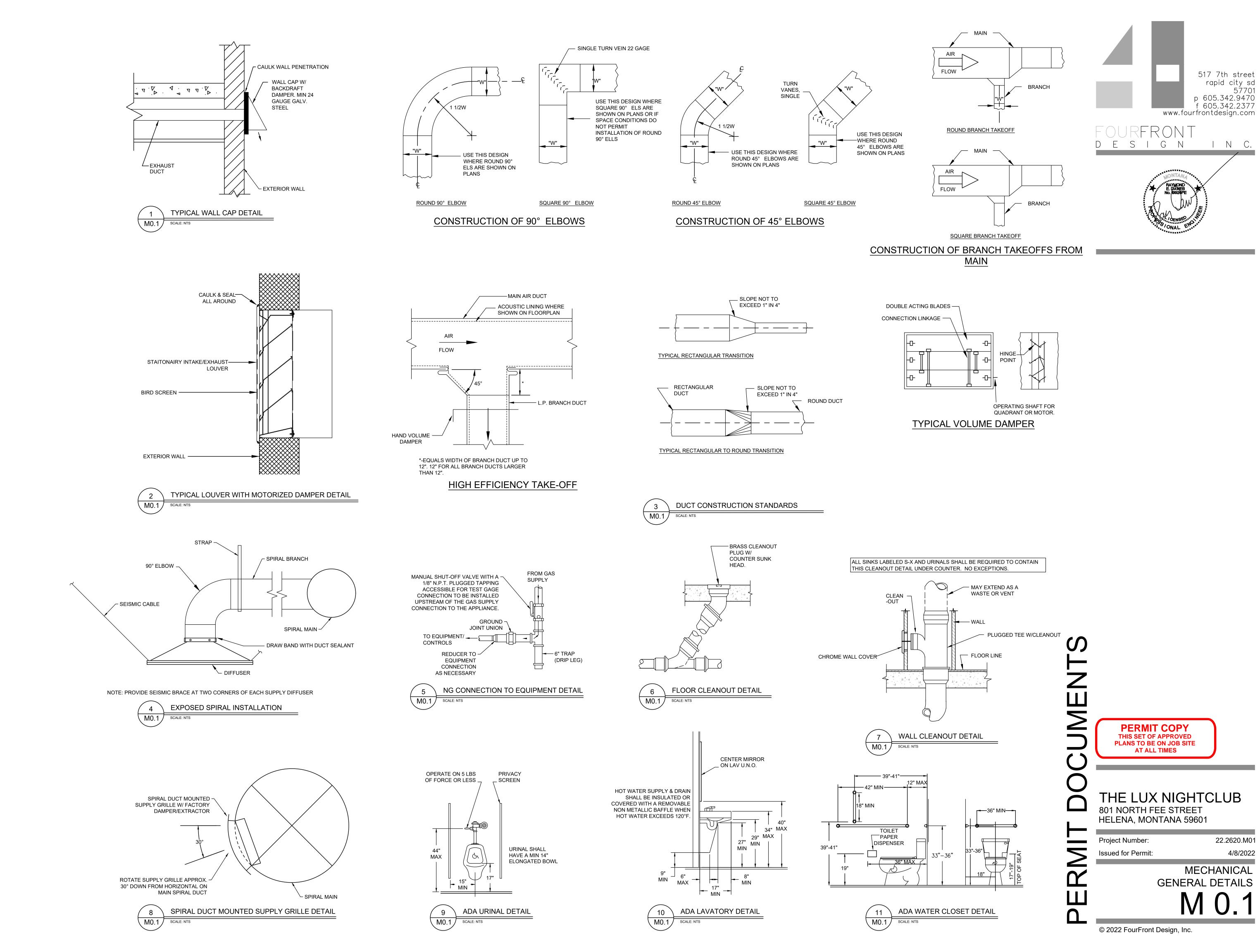
(FLEXIBLE TUBING NOT ALLOWED) INSULATION TO BE OF HEAVY DENSITY BONDED FIBERGLASS WITH ALL SERVICE JACKET (WHITE). FITTING TO BE PVC ZESTON COVERS WITH FLEXIBLE INSULATION WRAP. SEAL ALL JOINTS WITH SEALANT. K VALUE NOT EXCEEDING 0.27 BTU PER IN/H\*FT^2\*DEG F.

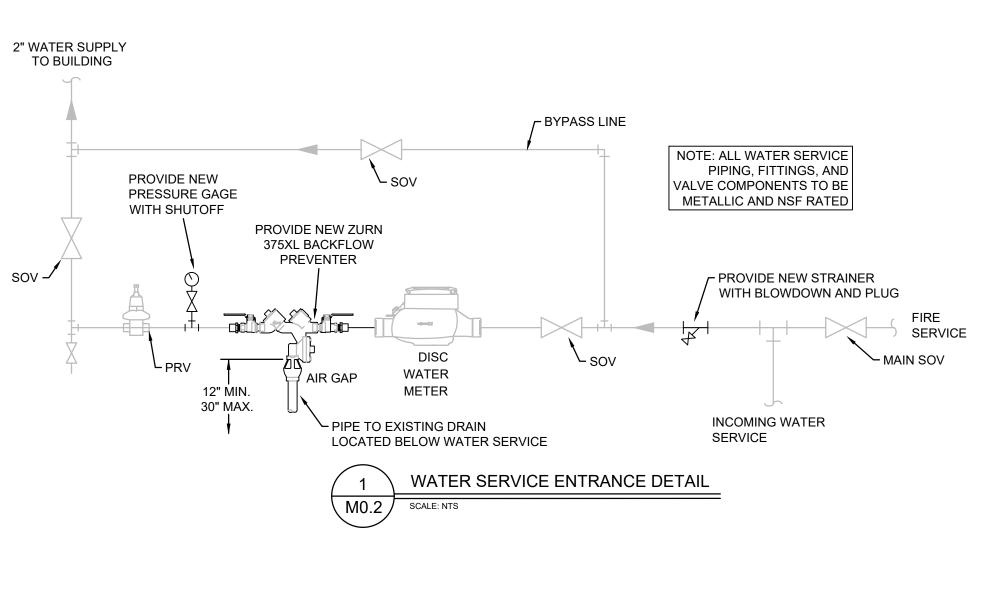
SEISMIC BRACE ALL PIPE GREATER THAN 2-1/2" ID PER LOCAL CODE.

ALL PIPING IN MECHANICAL ROOMS AND WATER SERVICES TO BE NSF RATED METALLIC PIPE. NO EXCEPTIONS.

SENERAL NOTE ALL: SEAL ALL NON RATED STRUCTURE PIPE PENETRATIONS INCLUDING DRAFT STOPS WITH SILICON OR FIRE RATED EXPANDING FOAM. SEAL ALL RATED PIPE PENETRATIONS IN ACCORDANCE WITH CONTRACTOR SELECTED MFR FIRE CAULK SYSTEM (AND/OR FIRE COLLAR) AND MATCH RATING WITH SPECIFIC UL LISTING. PROVIDE ENGINEER AND INSPECTOR FOR AHJ WITH SHOP DRAWING OF RATED ASSEMBLY PRIOR TO INSTALLATION.

PROVIDE WRITTEN AND SIGNED REPORT BY CONTRACTOR FOR ALL SYSTEMS TESTED, TYPE OF TEST, DATE, PRESSURE, TIME START, TIME END, AND SYSTEM TESTED. SUBMIT TO ENGINEER IN IOM SUBMITTAL.





- 3" GREASE SAN

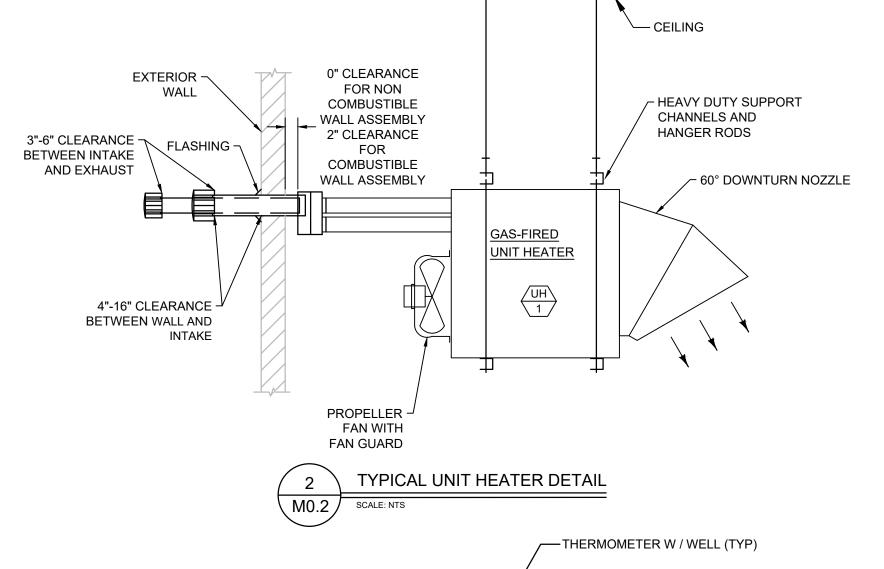
SPECIFICATION FOR SUPPLY BY THE CONTRACTOR.

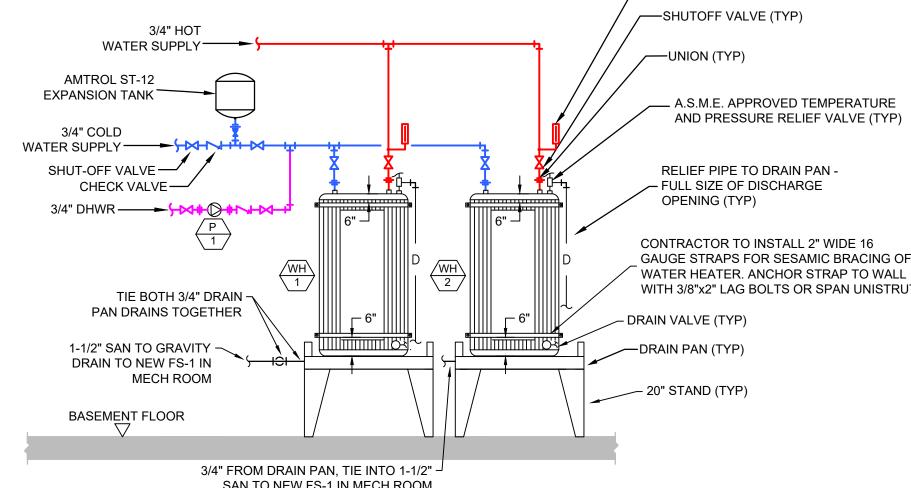
3/8" ALL THREAD FROM MAIN FLOOR STRUCTURE

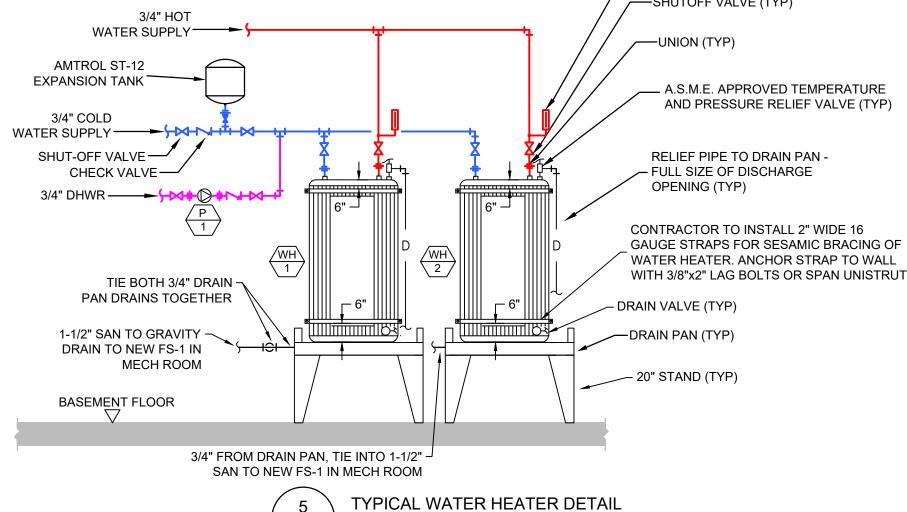
FLOW CONTROL FITTING

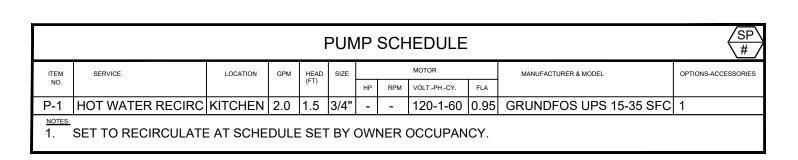
STRUT SUPPORT

SUSPENDED GREASE INTERCEPTOR DETAIL









M0.2

SPECIALTY TAG	DESCRIPTION	MANUFACTURER & MODEL #		PING CONNECTIONS				
TEGIAETT TAG	DESCRIPTION	MANUFACTURER & MODEL #	TRAF	-	VENT	C.W.	H.W.	REMARK
FD-1	FLOOR DRAIN	ZURN ZN415BZ-3		3"	2"	1/2"		-
FD-1	FLOOR DRAIN	ZURN ZN415BZ-2		2"	2"	1/2"		-
WCO-1	WALL CLEANOUT	ZURN Z1441		3"				
FCO-1	FLOOR CLEANOUT	ZURN ZN1400-S		3"				
FCO-1 NOTES:	FLOOR CLEANOUT	ZURN ZN1400-S		3"				

FIXTURE TAG	DESCRIPTION	MANUFACTURER & MODEL #		PIPING CONNECTIONS				
FIXTURE TAG	WALL-MOUNT LAVATORY	GERBER WEST POINT G0012354	TRAP	1 ½"	VENT 2"	DCW	DHW	REMARKS
				1 /2		1/ "	1/"	
	AUTO CONTROL FAUCET	GERBER GC044542		-	-	1/2"	1/2"	
LAV-1	WATER SUPPLY WITH STOP KIT	BRASSCRAFT KTCR19X C 1/4 TURN KIT						
	P-TRAP DRAIN ASSEMBLY	DEARBORN BRASS 704-1						1
	LAVATORY CARRIER	JAY R SMITH 0801						
	UNDERSINK MIXING VALVE	WATTS LFUSG-B UNDER SINK GUARDIAN						
	FLOOR MOUNT PRESSURE ASSIST WC	GERBER ULTRA FLUSH G0021318		3"	2"	1/2"		2,3
VA/O 4	ELONGATED OPEN FRONT-ADA SEAT	BEMIS 1955CTJ OPEN FRONT SEAT						
WC-1	WATER SUPPLY WITH STOP	BRASSCRAFT KTCR19X C 1/4 TURN KIT						4
	WAX FREE WATER CLOSET SEAL	FERNCO FTS-3						
	WALL MOUNT TOP SPUD URINAL	GERBER NORTH POINT GHE27720		2"	2"			
UR-1	TOP SPUD FLUSH VALVE	AMERICAN STANDARD 6145051.002				3/4"		4
	URINAL CARRIER	JAY R SMITH 0614						
GI-1	GREASE INTERCEPTOR	ZURN RC-35LP		3"	2"			5

PROVIDE 1" ROUGH IN CLEARANCE BEHIND WATER CLOSET FOR WAINSCOT THICKNESS ALLOWANCE. COORDINATE WITH GC

COORDINATE TRIP LEVER LOCATION TO MATCH THE WIDE APPROACH SIDE FOR ADA COMPLIANCE PRIOR TO ORDERING.

COORDINATE COLOR OF FIXTURE DURING SUBMITTAL PROCESS. OWNER TO SELECT COLORS.

HANG IN BASEMENT MECH ROOM. PROVIDE 3/8" ALL THREAD AND STRUT FROM MAIN FLOOR STRUCTURE.

ELECTRIC WATER HEATER SCHEDULE #										
ITEM NO.	CAPACITY STORAGE	RECOVERY @# DEG./ F. RISE	HEATING ELEMENT KW	ELECTRIC V./PH.	WATER CONN.	MANUFACTURER & MODEL	REMARKS			
WH-1	50	21/90	4.5	208/1	3/4"	BRADFORD WHITE RE250T6	1			
WH-1 NOTES: 1. PF						BRADFORD WHITE RE250T6 PIPE DRAIN PAN TO EXISTING	1 FL(			

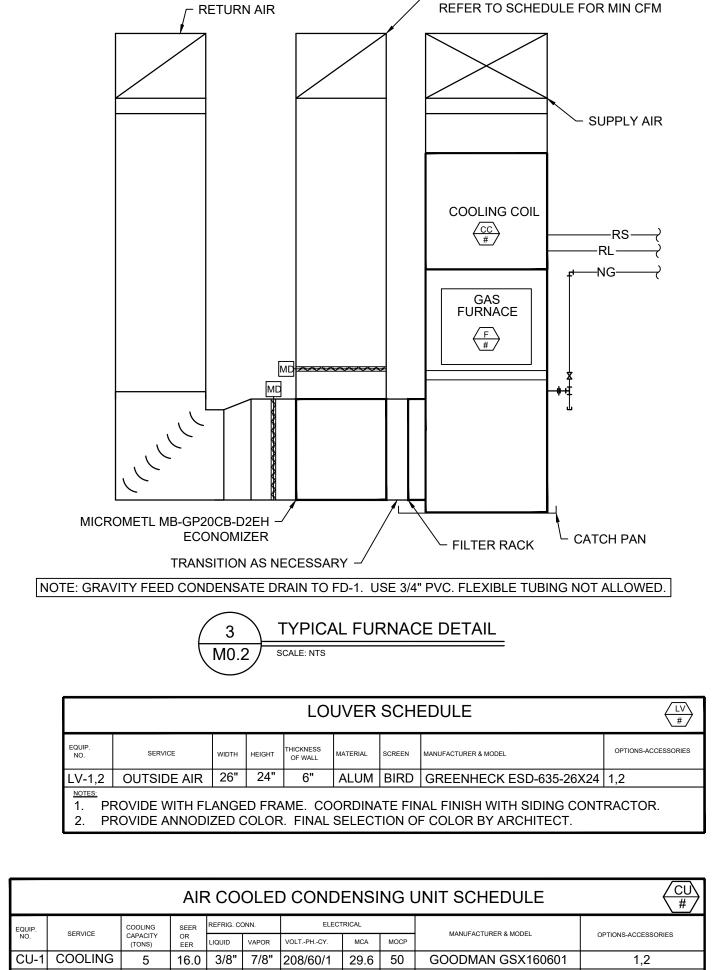
CLEANOUT -

M0.2

TAG	STYLE	CFM	NECK SIZE
01	SG-1	165	12"X4"
02	SG-1	165	12"X4"
03	SG-1	165	12"X4"
04	SG-1	165	12"X4"
05	SG-1	165	12"X4"
06	SG-1	165	12"X4"
07	SG-1	165	12"X4"
80	SG-1	165	12"X4"
09	SG-1	165	12"X4"
10	SG-2	250	14"X4"
11	SG-2	250	14"X4"
12	SG-2	250	14"X4"
13	SG-2	250	14"X4"
14	SG-2	250	14"X4"
15	SG-2	250	14"X4"
16	SG-2	250	14"X4"
17	SG-2	200	14"X4"
18	SD-1	180	8"Ø
19	SD-1	150	8"Ø
20	SD-1	150	8"Ø
21	RG-1	-	20"x20"
22	RG-1	_	20"x20"
23	RG-1	-	20"x20"
24	RG-1	-	20"x20"
25	RG-1	-	20"x20"
26	RG-1	-	20"x20"
27	RG-1	-	20"x20"
28	RG-1	-	20"x20"
29	RG-2	-	14"x36"
30	RG-2	-	14"x36"
31	EG-1	240	20"x20"
32	EG-1	240	20"x20"

GRD ID SCHEDULE

TAC	STYLE	CFM	NECK			F-1	H/C/V	1990	570	0.40	12
IAG	SITLE	CFIVI	SIZE			CC-1		1990	-	-	-
01	SG-1	165	12"X4"			CC-2	COOL	1990	-	-	-
02	SG-1	165	12"X4"			NOTES:	201/IDE 14/IT				NON D
03	SG-1	165	12"X4"				ROVIDE WIT ROVIDE WIT				
04	SG-1	165	12"X4"				LTERS PER			JINI FIL	
05	SG-1	165	12"X4"				ROVIDE WIT			ETL MB	GP200
06	SG-1	165	12"X4"				ROVIDE FAC				
07	SG-1	165	12"X4"			5. PF	ROVIDE WIT	H FAC	TORY	/ 3"Ø C	OMB A
80	SG-1	165	12"X4"			<u> </u>					
09	SG-1	165	12"X4"		ı						
10	SG-2	250	14"X4"							N	IATU
11	SG-2	250	14"X4"					-			0
12	SG-2	250	14"X4"			EQUIPMENT	055),405	SUPPL	Y s	KTERNAL STATIC	INPUT
13	SG-2	250	14"X4"			NO.	SERVICE	AIR (CFM)		PRESS. N. W.G.)	(KBTU) MAX/MIN
14	SG-2	250	14"X4"			UH-1	HEATING	192		-	150
15	SG-2	250	14"X4"			NOTES:					<u>I</u>
16	SG-2	250	14"X4"				OVIDE WITH				
17	SG-2	200	14"X4"				OVIDE WITH				
18	SD-1	180	8"Ø				OVIDE WITH OVIDE WITH				
19	SD-1	150	8"Ø			4. PR	OVIDE WITH	יט טט	OVVIN	IUKNI	OZZLE
20	SD-1	150	8"Ø								
21	RG-1	-	20"x20"								
22	RG-1	-	20"x20"							GRIL	I F/R
23	RG-1	-	20"x20"	SR=SUPI	PLYT RE	GISTER		RG=I	RETURN (		
24	RG-1	-	20"x20"	TAG NO.	NE	CK SIZE	TYPE				
25	RG-1	-	20"x20"	SG-1	12"	x4"	DOUBLE DE	FLEC	TION	LOUVE	RED D
26	RG-1	-	20"x20"	SG-2	14"	x4"	DOUBLE DE	FLEC	TION	LOUVE	RED D
27	RG-1	-	20"x20"	SD-1	8"Q	<b>y</b>	LOUVERED	SQAU	RE C	EILING	SUPPI
28	RG-1	-	20"x20"	RG-1	20"	X 20"	CEILING LA	Y-IN F	IXED	LOUVE	R RET
29	RG-2	-	14"x36"		_		WALL MOU				
30	RG-2	-	14"x36"			X 20"	CEILING LA				
31	EG-1	240	20"x20"	NOTES:		20	JEIEII (O E/ (		,,,,,		
32	EG-1	240	20"x20"	1. 1	PRO	VIDE WIT	ΓΗ ALL REQI	JIRED	HAR	DWARE	FOR I
33	EG-1	240	20"x20"				TH FACTORY				
34	EG-1	240	20"x20"	3. I	PRO	VIDE WIT	TH FACTORY	/ DAMI	PER.		



─ OUTSIDE AIR

EQUIPMENT	PMENT		MIN OUTSIDE	EXTERNAL STATIC	INPUT	ОИТРИТ		MOTOR	ELECTRIC			MANUFACTURER & MODEL	
NO.	SERVICE	AIR (CFM)	AIR (CFM)	PRESS. (IN. W.G.)	(KBTU) MAX	(KBTU) MAX/MIN	IENCY A.F.U.E.	(HP)	MOCP	MCA	VOLTPHCY.	WANDI ACTONER & WOBEL	
F-1	H/C/V	1990	570	0.40	120	115	96%	1.0	15.0	13.3	120/1/60	GOODMAN-GMEC961205DNA	
F-1	H/C/V	1990	570	0.40	120	115	96%	1.0	15.0	13.3	120/1/60	GOODMAN-GMEC961205DNA	
CC-1	COOL	1990	-	-	-	-	-	-	-	-	-	GOODMAN-CACTA6030D4	
CC-2	COOL	1990	-	-	-	-	-	-	-	-	-	GOODMAN-CACTA6030D4	
CC-2   COOL   1990   -   -   -   -   -   -   -   -   -													

PROVIDE WITH FACTORY 3"Ø COMB AIR/FLUE SIDEWALL TERMINATION KIT.

CU-2 COOLING 5 16.0 3/8" 7/8" 208/60/1 29.6 50 GOODMAN GSX160601

SIZE AND INSTALL REFRIGERANT PIPING PER MANUFACTURER RECOMMENDATIONS.

PROVIDE WITH FACTORY SIZED TXV VALVE ON THE INDOOR COIL AND FREEZE PROTECTION KIT.

NATURAL GAS FIRED UNIT HEATER SCHEDULE												
EQUIPMENT		SUPPLY STATIC		INPUT	OUTPUT	EFFIC-	BLOWER	BLOWER		TRIC	MANUSA OTUBER A MORE	ODTIONS ASSESSED TO
NO.	SERVICE	AIR (CFM)	PRESS. (IN. W.G.)	(KBTU) MAX/MIN	(KBTU) MAX/MIN	IENCY A.F.U.E.	MOTOR (HP)	MOCP	FLA	VOLTPHCY.	MANUFACTURER & MODEL	OPTIONS-ACCESSORIES
UH-1	HEATING	1921	-	150	124.5	83	1/6	15	3.8	120-1-60	REZNOR UDZ-150	1,2,3,4
2. PRO	PROVIDE WITH FACTORY THERMOSTAT .  PROVIDE WITH HORIZONTAL SEALED COMBUSTION VENT KIT AND VENT CAP.  PROVIDE WITH 3/8" ALL-THREAD TO FACTORY HANGING POINTS (x4).											

00 000	NAT DEGISTED			SER SCHEDULE		TO TRANSFER OR
TAG NO.	NECK SIZE	RG=RETURN GRILLE TYPE	SD=SUPPLY DIFFUSER	EG=EXHAUST GI MANUFACTURER & MODEL	MATL/FINISH	TG=TRANSFER GRIL
SG-1	12"x4"	DOUBLE DEFLECTION LOUVERED D	OUCT GRILLE	NAILOR 51DHC-DEX	ALUM.	1,2
SG-2	14"x4"	DOUBLE DEFLECTION LOUVERED D	OUCT GRILLE	NAILOR 51DHC-DEX	ALUM.	1,2
SD-1	8"Ø	LOUVERED SQAURE CEILING SUPP	LY SURFACE	NAILOR ARNS-8-L	ALUM.	1,3
RG-1	20" X 20"	CEILING LAY-IN FIXED LOUVER RET	URN GRILLE	NAILOR-7145H-L	ALUM.	1
RG-2	14" X 36"	WALL MOUNT FIXED LOUVER RETU	RN GRILLE	NAILOR-7145H-S	ALUM.	1
EG-1	20" X 20"	CEILING LAY-IN FIXED LOUVER RET	URN GRILLE	NAILOR-7145H-L	ALUM.	1

FAN SCHEDULE										EF #
EQUIP.		LOCATION	CFM	STATIC	MOTOR				MANUFACTURER & MODEL	NOTES
NO.	SERVICE			PRESS. (IN. W.G.)	AMP	HP-W	SONES	VOLTPHCY.	WANDFACTORER & MODEL	NOTES
EF-1	EXHAUST (INLINE)	UPPER RESTROOM CEILING	480	0.30	2.45	-	1.4	120-1-60	GREENHECK CSP-A510-VG	1,2
EF-2	EXHAUST (INLINE)	LOWER RESTROOM CEILING	480	0.30	2.45	ı	1.4	120-1-60	GREENHECK CSP-A510-VG	1,2

MUA-1 MAKEUP AIR | 2200 | 0.25 | 7.2 | 1/3 | - | 120-1-60 | CAPTIVEAIRE DMUA118-FA | 3 PROVIDE WITH BACKDRAFT DAMPER, SPEED CONTROL, VIBRATION ISOL HANGING KIT, AND GALVANIZED WALL CAP FOR EXTERIOR. PAINT WALL CAP PER COLOR SELECTED BY ARCHITECT.

RESTROOM CEILING OCCUPANCY SENSORS TO ENABLE FAN, MINIMUM 20 MIN DELAY OFF. PROVIDE WITH FACTORY WALL MOUNT SLEEVE, MOTORIZED DAMPER, AND DISCONNECT SWITCH. CONNECT TO EXISTING KITCHEN EXHAUST HOOD SWITCH, TO ENABLE WHENEVER EXISTING KITCHEN EXHAUST HOOD IS RUNNING.

1,2

1,2

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THE LUX NIGHTCLUB 801 NORTH FEE STREET HELENA, MONTANA 59601

Project Number: Issued for Permit:

> MECHANICAL DETAILS AND SCHEDULES

22.2620.M01

517 7th street

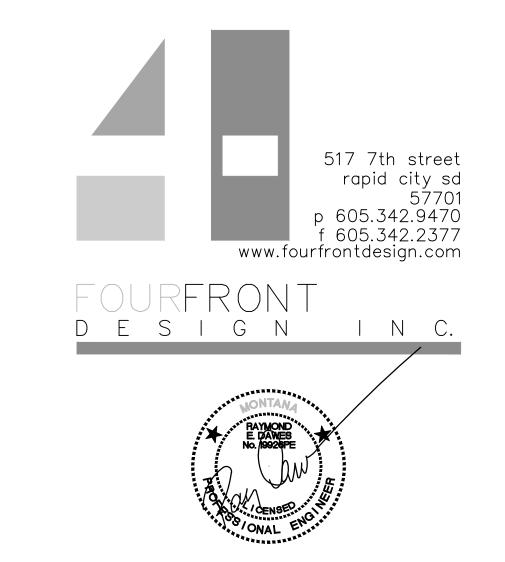
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# THE LUX NIGHTCLUB

801 NORTH FEE STREET HELENA, MONTANA 59601

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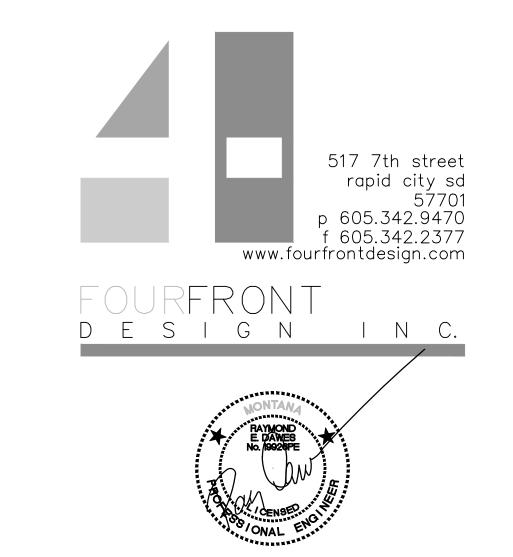
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r: 22.2620.M01 nit: 4/8/2022

BASEMENT PLUMBING DEMOLITION PLAN

M 1.0

MAIN FLOOR PLUMBING DEMOLITION PLAN



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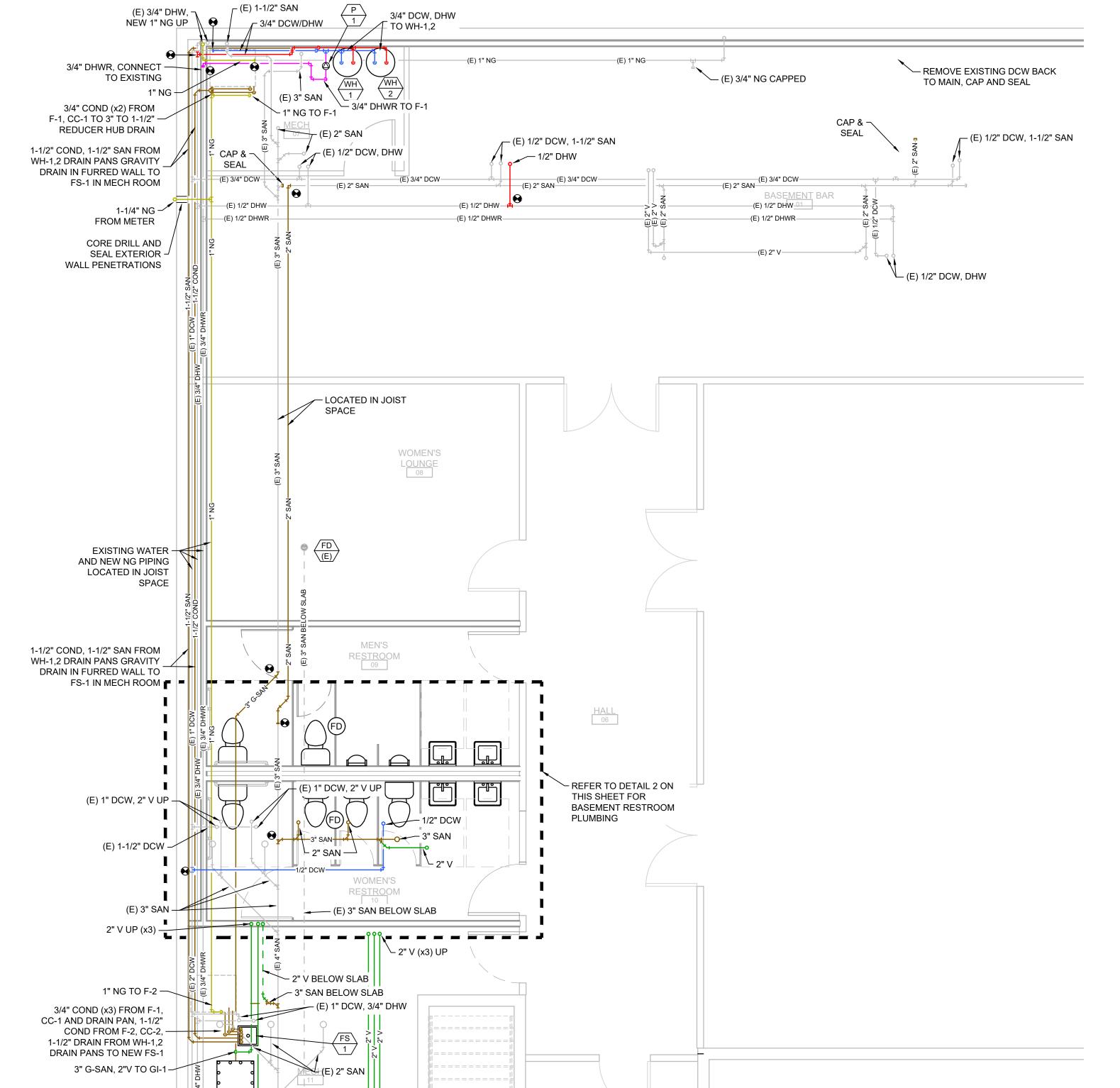
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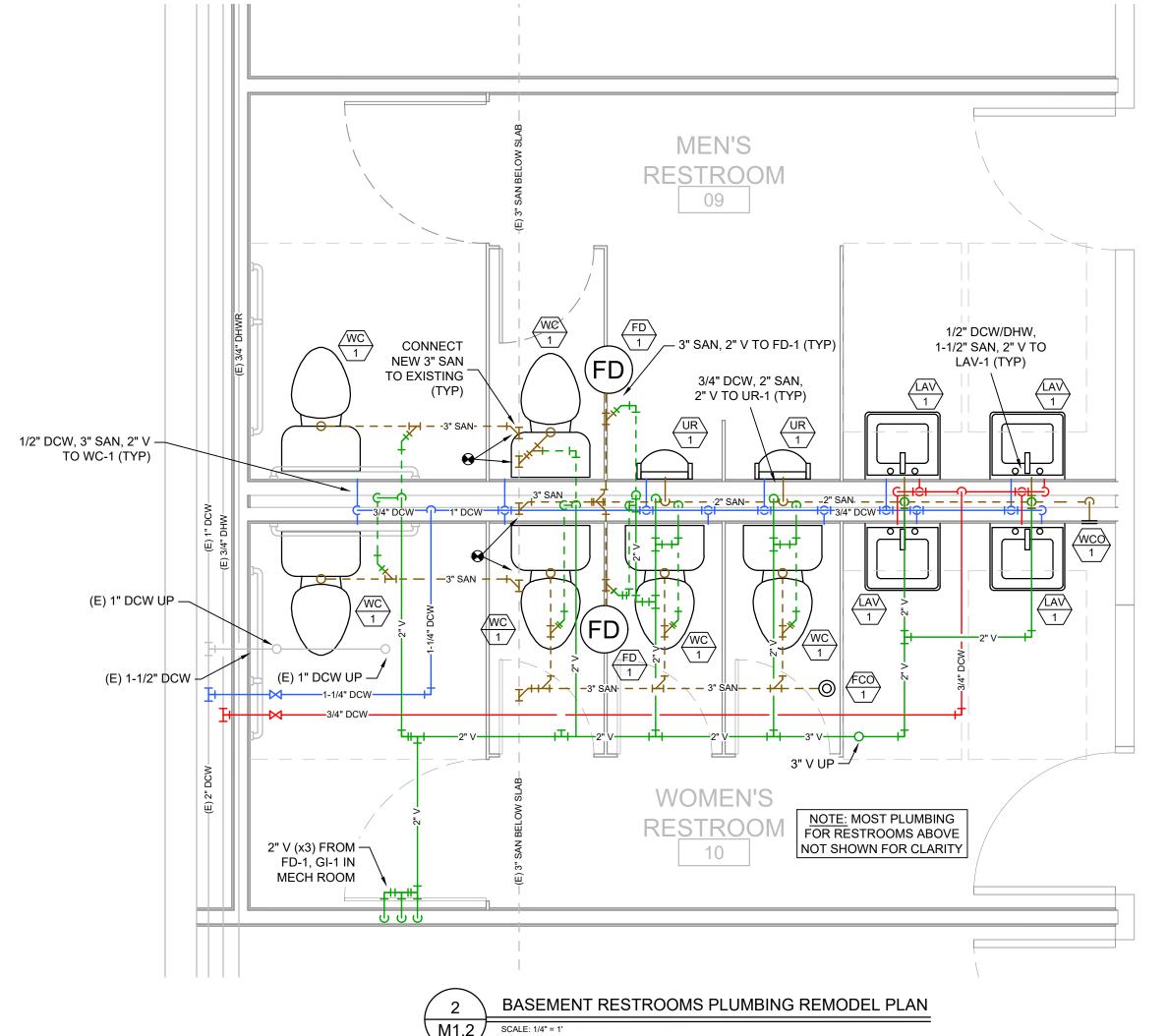
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MAIN FLOOR PLUMBING **DEMOLITION PLAN** 









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# THE LUX NIGHTCLUB 801 NORTH FEE STREET

HELENA, MONTANA 59601

Project Number: Issued for Permit:

BASEMENT PLUMBING

REMODEL PLANS

12

22.2620.M01

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(SUSPEND FROM GI CEILING, REFER TO 4-M0.2)

EXISTING WATER

DETAIL 1-M0.2

(E) 3" SAN UP

1/2" DCW UP -\frac{J}{2}

THROUGH FLOOR

SERVICE ENTRANCE

LOCATION, REFER TO

—(E) 3/4" DHW—

**---**2" V──--

—3" SAN—

→ 3" SAN, 1/2"

DCW UP

2" SAN UP

/ (E) 2" DCW DN

<sup>∠</sup> (E) 3" SAN UP

└ (E) 2" V UP

(E) 1/2" DHW

AND DCW

(E) 1/2" DHW

└ (E) 4" SAN DOWN

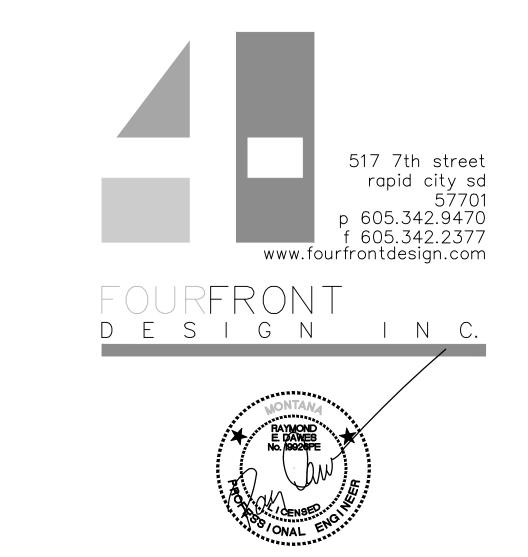
→ 3" SAN, 1/2" DCW UP

THRU FLOOR

- CONNECT NEW 2" SAN TO EXISTING 4" MAIN

BASEMENT PLUMBING REMODEL PLAN

MAIN FLOOR PLUMBING REMODEL PLAN



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801 NORTH FEE STREET HELENA, MONTANA 59601

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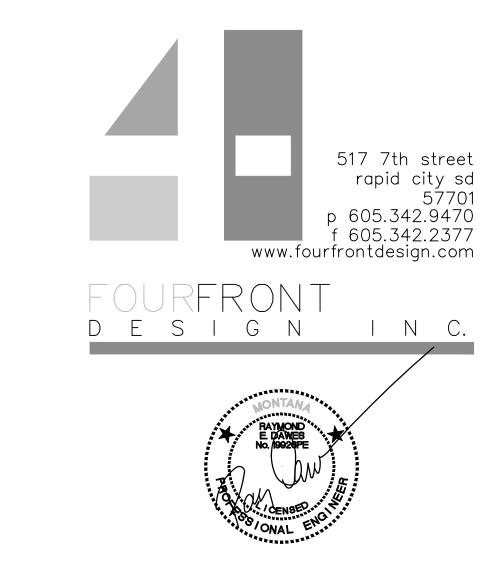
MAIN FLOOR PLUMBING

REMODEL PLAN

13

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MAIN FLOOR HVAC DEMOLITION PLAN



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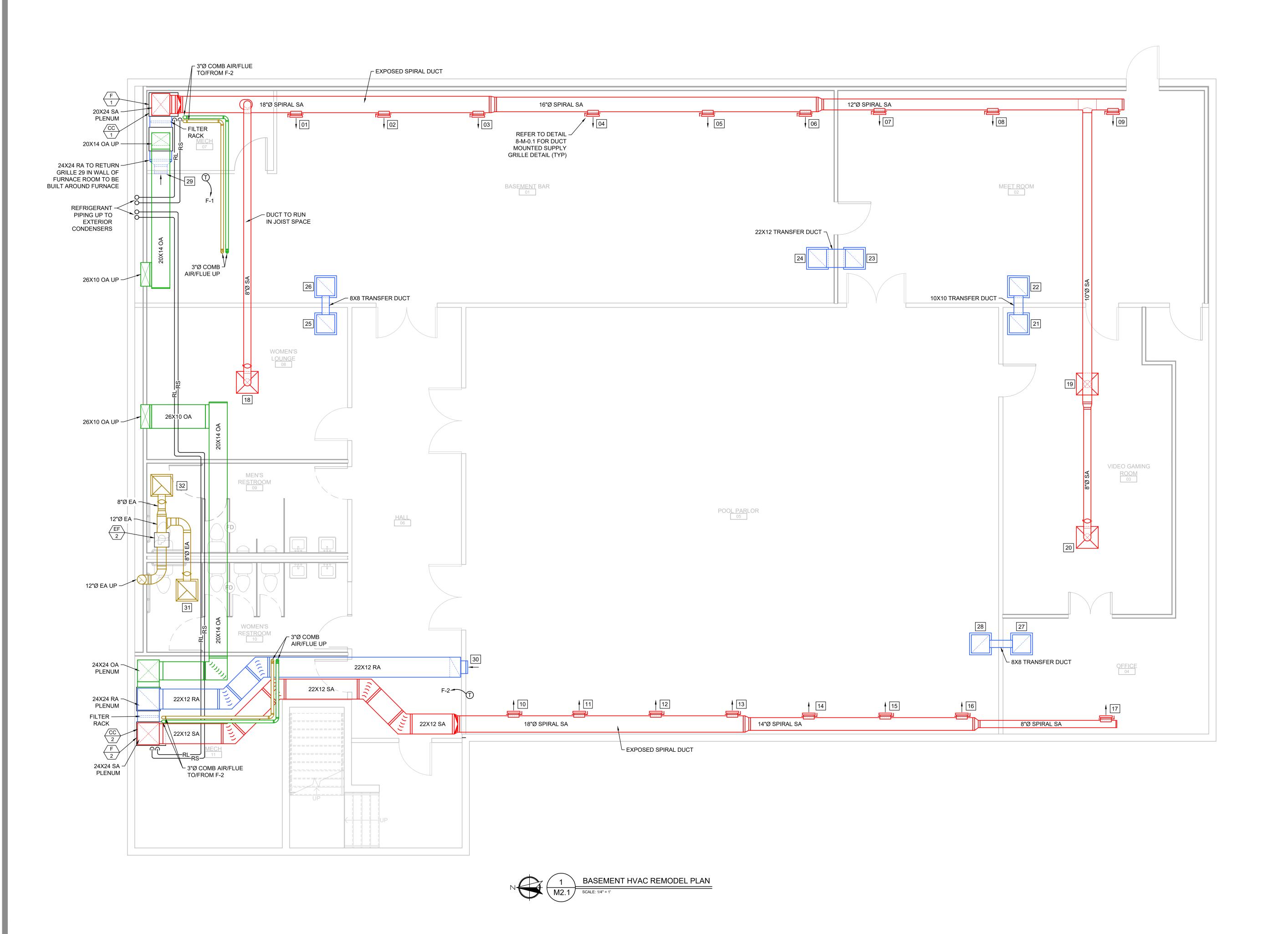
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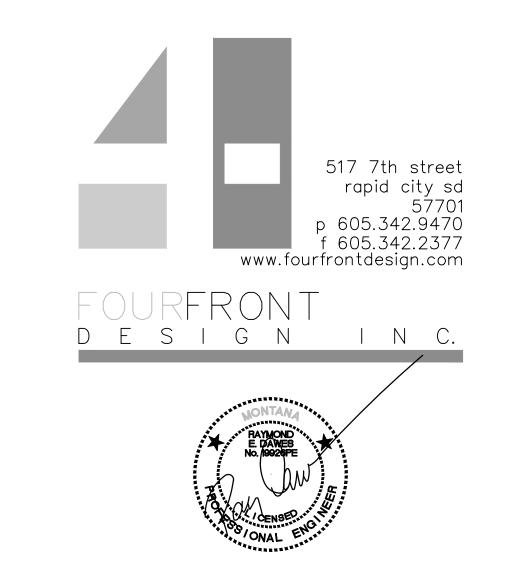
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Project Number: Issued for Permit: 22.2620.M01 4/8/2022

MAIN FLOOR HVAC DEMOLITION PLAN

MOLITION PLAN





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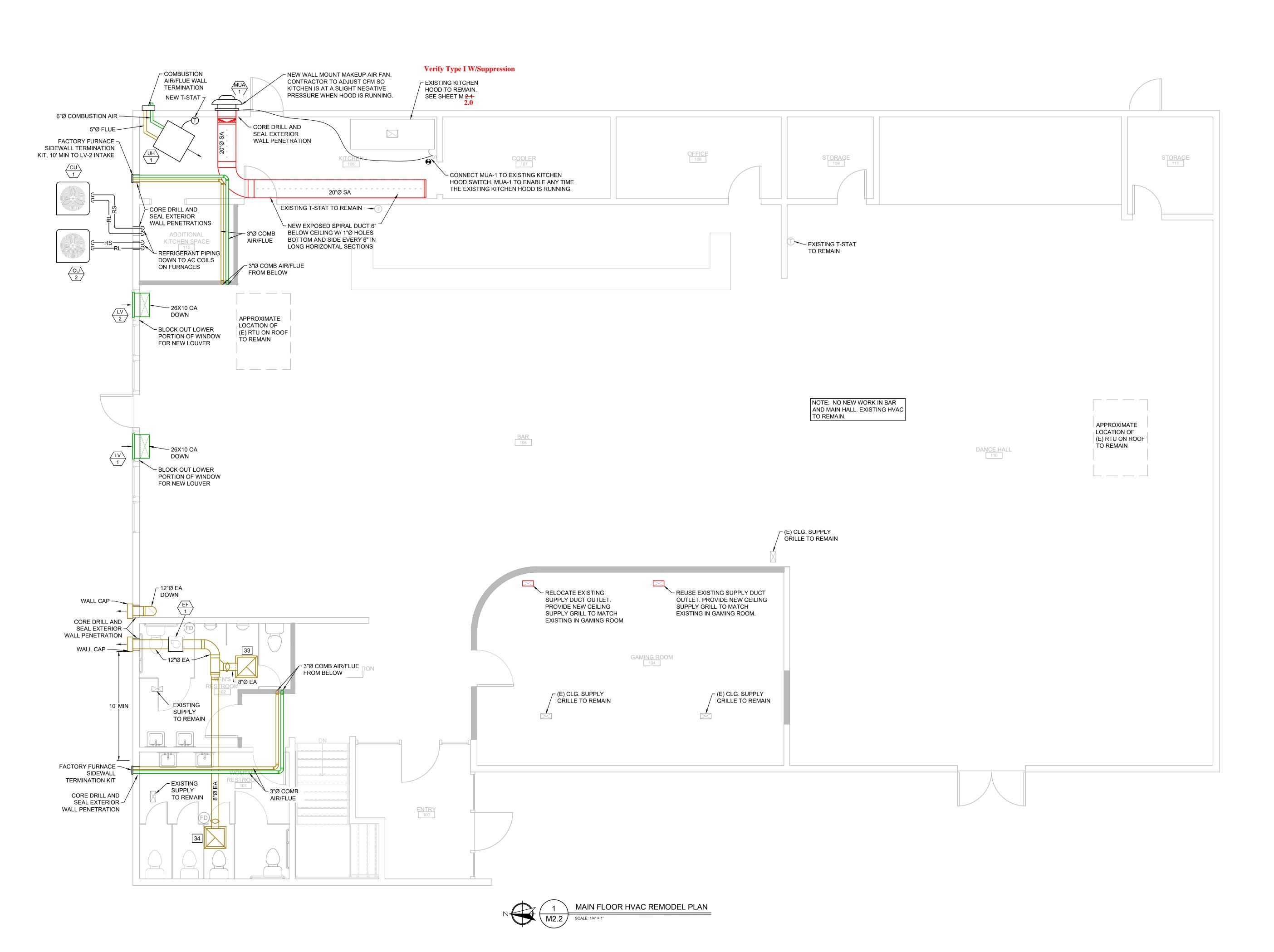
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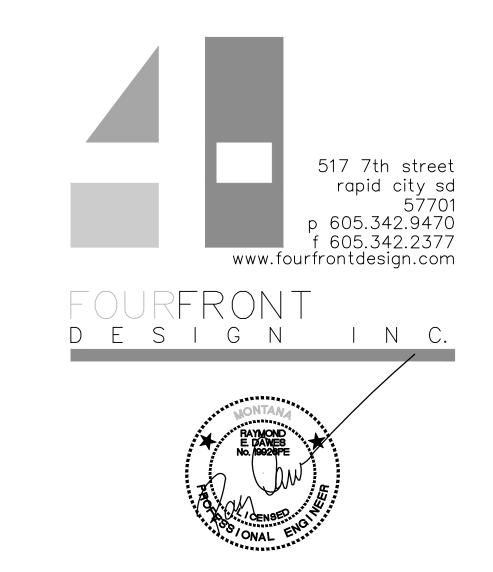
Project Number:

4/8/2022 BASEMENT HVAC

REMODEL PLAN

22.2620.M01





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# THE LUX NIGHTCLUB 801 NORTH FEE STREET

HELENA, MONTANA 59601

Project Number: Issued for Permit:

per: 22.2620.M01 ermit: 4/8/2022

> MAIN FLOOR HVAC REMODEL PLAN

REMODEL PLAN

	ELECTRICA	L LE	GEND
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	ITEMS SHOWN IN GRAY ARE EXISTING TO REMAIN	$\Diamond$	MOTOR, SINGLE-PHASE
	DASHED ITEMS ARE INSTALLED BELOW REFERENCED	Ø	MOTOR, THREE-PHASE
	PLAN	T	TRANSFORMER
	DEMOLITION PLANS: SOLID DARK ITEMS ARE TO BE	<u> </u>	EARTH GROUND
	REMOVED OR MODIFIED.  - NEW PLANS: SOLID DARK ITEMS ARE TO BE  -	Ť	DISCONNECT SWITCH, FUSED
	NEW PLANS: SOLID DARK ITEMS ARE TO BE - ADDED OR MODIFIED	一一	DISCONNECT SWITCH, UNFUSED
			STARTER, COMBINATION WITH DISCONNECT SWITCH
	JUNCTION BOX -	$\overline{\boxtimes}$	STARTER OR MOTOR CONTROLLER
c c	LADDER CABLE TRAY		VARIABLE FREQUENCY DRIVE
	BRANCH CIRCUIT HOMERUN. LINES INDICATE	€тс	TIME CLOCK
	NUMBER OF LINE, NEUTRAL, AND SWITCH LEG	\$	SWITCH, SPST
<u> </u>	CONDUCTORS. ONE SEPARATE GREEN GROUNDING	\$2	SWITCH, DPST
	CONDUCTOR SHALL BE PROVIDED FOR EACH	<b>\$</b> 3	SWITCH, THREE WAY
	HOMERUN; NOT SHOWN	<b>\$</b> 3D	SWITCH, THREE WAY DIMMER
РВ	PULL BOX	\$30S	SWITCH, THREE WAY OCCUPANCY SENSOR
	POWER DUCT = P	\$4	SWITCH, FOUR WAY
— P —	AUDIO VISUAL LINE = AV	\$D	SWITCH, DIMMER
— AV —		\$DOOR	SWITCH, DOOR JAMB
— FO —	FIBEROPTICS LINE = FO	\$40S	SWITCH, FOUR WAY OCCUPANCY SENSOR
—COM—	COMMUNICATIONS LINE = COM	\$F	SWITCH, FUSED
DP#_	DISTRIBUTION PANEL	\$мс	SWITCH, MOMENTARY CONTACT
IP.	LIGHTING PANEL	\$os	SWITCH, OCCUPANCY SENSOR
Ellilli.	PANELBOARD CABINET, FLUSH MOUNTED	\$0SD	SWITCH, OCCUPANCY SENSOR DIMMER
	PANELBOARD CABINET, SURFACE MOUNTED	\$P	SWITCH, WITH PILOT LIGHT
_	RECEPTACLE, DUPLEX	\$PB	SWITCH, PUSH BUTTON
<u></u>	RECEPTACLE, DUPLEX ON EMERGENCY POWER	\$PH	SWITCH, PHOTOCELL
<u></u>	RECEPTACLE, GFCI DUPLEX	\$RC	SWITCH, REMOTE CONTROL
#	RECEPTACLE, QUADRAPLEX	\$wp	SWITCH, WEATHER PROOF
$-\!$	RECEPTACLE, SPECIAL PURPOSE 125V, 30A, 1 PHASE, 2-POLE, 3W, NEMA TT-30R	\$x	SWITCH, EXPLOSION PROOF
^	RECEPTACLE, SPECIAL PURPOSE 208V.	$\overline{\square}$	COMMUNICATIONS FLOOR RECEPTACLE
$-\!$	20A, 1 PHASE, 2-POLE, 3W, NEMA 6-20R.	$\nabla$	COMMUNICATIONS WALL RECEPTACLE
	RECEPTACLE, SPECIAL PURPOSE 120V,	$\bigcirc$	COMMUNICATIONS CEILING RECEPTACLE
$-\otimes_{c}$	30A, 1 PHASE, 2-POLE, 3W, NEMA 5-30R.	<u> </u>	TELEVISION FLOOR RECEPTACLE
_	RECEPTACLE, SPECIAL PURPOSE 208V,		C = CAMERA (CCTV SYSTEM)
$-\otimes_{D}$	30A, 1 PHASE, 2-POLE, 3W, NEMA 6-30R.	$\overline{\underline{\mathbb{Y}}}^{M}$	M =MONITOR (CATV SYSTEM).
	RECEPTACLE, SPECIAL PURPOSE 208V,	<u>*</u>	AV=AUDIO VISUAL (CONFERENCE ROOM
$-\Theta_{E}$	60A, 1 PHASE, 3-POLE, 4W, NEMA 14-60R.		CONNECTION RECEPTACLES)
	RECEPTACLE, SPECIAL PURPOSE 208V,		TELEVISION WALL RECEPTACLE
$-\!$	30A, 1 PHASE, 3-POLE 4W, NEMA 14-30R.	8.4	C = CAMERA (CCTV SYSTEM)
-0	RECEPTACLE, SPECIAL PURPOSE 208V,	${\overline{\Psi}}^{\sf M}$	M =MONITOR (CATV SYSTEM).
$-\!$	50A, 3 PHASE, 3 POLE, 4W, NEMA 14-50R.	_	AV=AUDIO VISUAL (CONFERENCE ROOM
4	RECEPTACLE, SPECIAL PURPOSE 208V,		CONNECTION RECEPTACLES)
-O <sub>H</sub>	60A, 3 PHASE, 3 POLE, 4W, NEMA 15-60R.		TELEVISION CEILING RECEPTACLE
-⊗,	RECEPTACLE, SPECIAL PURPOSE 208V,	_ M	C =CAMERA (CCTV SYSTEM)
	20A, 3 PHASE, 3 POLE, 4W, NEMA 15-20R.	$\bigcirc^{M}$	M =MONITOR (CATV SYSTEM).
÷⊖s	RECEPTACLE, SWITCHED DUPLEX	-	AV=AUDIO VISUAL (CONFERENCE ROOM
	DROP CORD, SINGLE CONVENIENCE OUTLET, 3-WIRE,		CONNECTION RECEPTACLES)
€	GROUNDING TYPE, 20A, W/#12 CONDUCTORS IN	•	POINT OF CONNECTION SYMBOL
	FLEXIBLE CORD (CENTER LINE OF OUTLET: 6'-6"		DEDDESENTS EVISTING CONDITION
	[1981mm] AFF. MINIMUM).	(E)	REPRESENTS EXISTING CONDITION
<u> </u>	ELECTRICAL STRIP MOLD (OUTLETS ON 2'-0" [610mm]		
	CENTERS OR AS DESIGNATED ON DRAWINGS), MTD 3'-6" [1067mm] AFF OR AS INDICATED.		
	O O [100/11111] ALL OR AO INDIONIED.		

ELECTRICAL HARDWARE								
CONDUIT & RACEWAYS SHALL BE CONCEALED AND APPROVED FOR USE AND LOCATION.								
DRY LOCATIONS UNDERGROUND FLEXIBLE CONDUIT  - GRC, IMC, EMT GRC, PVC ALLOWED ONLY FOR CONNECTION OF EQUIPMENT AND LIMITED TO LENGTHS OF SIX FEET. GALVANIZED, LIQUID TIGHT. MC OR AC ALLOWED WHEN PROTECTED. PROVIDE SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN CONDUIT.								
NM-B CABLE - ALLOWED WHEN CONCEALED IN WALLS OR ABOVE CEILINGS.								
JUNCTION AND PULL BOXES: DRY LOCATIONS - STEEL WITH COVERS. WET LOCATIONS - CAST ALUMINUM. SIZE PER NEC.								
COUPLINGS AND CONNECTORS:  GRC - THREADED  IMC - THREADED  EMT - DRY-COMPRESSION OR SET SCREW, BOTH OF STEEL, WET-RAIN TIGHT  PVC - CEMENT JOINT TYPE  INDENTER TYPE CONNECTORS PROHIBITED.								
CABELING DEVICES AND PLATES:  DUPLEX OUTLETS - HUBBELL #CR20 SERIES, 20 AMP (OR APPROVED EQUAL)  GFCI OUTLETS - HUBBELL #GF20 SERIES, 20 AMP (OR APPROVED EQUAL)  DEVICE COLOR - COORDINATE COLOR W/ OWNER OR ARCHITECT  PLATES - NYLON. COORDINATE COLOR W/ OWNER OR ARCHITECT								
ANCHORS: HOLLOW MASONRY - TOGGLE BOLT. SOLID MASONRY - EXPANSION BOLT. STEEL - METAL MACHINE SCREWS, BOLTS.								

- WOOD SCREWS.

WOOD

### BASIC ELECTRICAL REQUIREMENTS

FURNISH ALL LABOR AND MATERIALS AND PERFORM ALL OPERATIONS NECESSARY FOR THE INSTALLATION OF COMPLETE AND OPERATING ELECTRICAL SYSTEMS SUBJECT TO THE CONDITIONS OF THE CONTRACT. PROVIDE SATISFACTORY OPERATION OF ALL EQUIPMENT AND CONTROLS TO THE ARCHITECT/ENGINEER UPON REQUEST.

ALL MATERIALS SHALL BE NEW. SUBSTITUTIONS SHALL BE APPROVED BY OWNER AND/OR ENGINEER.

VISIT THE PREMISES BEFORE SUBMITTING BID AS NO CHANGE ORDERS WILL BE ALLOWED FOR LACK OF KNOWLEDGE OF EXISTING CONDITIONS.

COORDINATE AND ORDER THE PROGRESS OF WORK TO CONFORM TO THE PROJECT SCHEDULE AND THE PROGRESS OF THE WORK OF THE OTHER TRADES.

ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND BECAUSE OF THE SMALL SCALE, IT IS NOT POSSIBLE TO INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. VERIFY ALL SPACE REQUIREMENTS, COORDINATING WITH OTHER TRADES, AND INSTALL THE SYSTEMS IN THE SPACE PROVIDED WITHOUT EXTRA CHARGES TO THE

PERFORM WORK IN ACCORDANCE WITH GOOD COMMERCIAL PRACTICE. THE GOOD APPEARANCE OF THE FINISHED WORK SHALL BE OF EQUAL IMPORTANCE WITH ITS ELECTRICAL EFFICIENCY AND INTENT. THE OWNER MAY REJECT WORK IF WORKMANSHIP AND APPEARANCE ARE NOT SATISFACTORY.

INSTALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS UNLESS SPECIFICALLY INDICATED OTHERWISE, OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AND ORDINANCES. COMPLY WITH REQUIREMENTS OF THE UTILITY COMPANIES. IN THE CASE OF DIFFERENCES BETWEEN THESE REQUIREMENTS AND ORDINANCES, THE MOST STRINGENT SHALL GOVERN. CALL FOR INSPECTIONS REQUIRED BY LOCAL BUILDING INSPECTION AUTHORITY.

PLANS AND SPECIFICATIONS GO HAND IN HAND. WHAT IS REQUIRED IN ONE IS REQUIRED IN BOTH. WHERE CONFLICTS BETWEEN SPECIFICATIONS AND PLANS EXIST, THE MOST STRINGENT REQUIREMENTS SHALL APPLY.

ELECTRICAL PLANS SUPERCEDE ARCHITECTURAL PLANS. BACKGROUND FLOOR PLANS USED FOR ELECTRICAL DRAWINGS MAY SHOW DIFFERENT THAN THE FINAL ARCHITECTURAL LAYOUT. REFER TO ARCHITECTURAL DRAWINGS FOR ACTUAL DIMENSIONS AND LAYOUT PLACEMENTS FOR SPACE CONDITIONS.

ELECTRICAL DETAILS MAY OR MAY NOT BE DIRECTLY REFERENCED. ALL DETAILS SHOWN ARE TO BE USED FOR BASIS OF INSTALLATION IN ALL CASES, IN COORDINATED EFFORT WITH MANUFACTURERS INSTALLATION RECOMMENDATIONS.

ELECTRICAL SHEETS ARE NOT INTENDED TO SPECIFICALLY BE TRADE SPECIFIC TO ELECTRICAL INSTALLATION WORK. ALL MECHANICAL AND ELECTRICAL TRADES ARE RESPONSIBLE FOR FAMILIARIZING THEMSELVES AND INCLUDING A COMPLETE PACKAGE WITHIN THEIR OFFER FOR A COMPLETE SYSTEM.

GENERAL CONSTRUCTION NOTES

BUILDING AND ENERGY CODES.

CONTRACTOR.

ALL WORK PERFORMED IN CONJUNCTION WITH THESE DRAWINGS SHALL MEET ALL CURRENT APPLICABLE

ALL WORK PERFORMED IN CONJUNCTION WITH THESE

ALL NEW AND ALTERED LIGHTING SHALL BE SECURELY FASTENED TO GRID AND SHALL BE SEISMICALLY SUPPORTED AS PER APPLICABLE BUILDING CODES.

THIS SET OF DOCUMENTS IS INTENDED FOR AHJ REVIEW AND SHALL BE CONSIDERED AS

RESPONSIBILITY OF THE CONTRACTOR TO

OWNER, PRIOR TO ORDERING OR INSTALLING.

CONSTRUCTION DOCUMENTS. IT SHALL BE THE SOLE

COORDINATE ALL CONDITIONS, EXISTING AND/OR NEW, OF THE SITE AS WELL AS LOCATIONS, QUANTITIES, TYPE AND STYLE OF ALL PRODUCTS PROVIDED, WITH

DRAWINGS IS SUBJECT TO APPROVAL BY THE AUTHORITY HAVING JURISDICTION (CODE OFFICIAL). ALL ROOF PENETRATIONS SHALL BE PATCHED AND SEALED, WITH WARRANTY FROM BUILDING ROOFING AT COMPLETION OF WORK, DELIVER COMPLETED PROJECT RECORD

DOCUMENTS MARKED WITH FIELD CHANGES TO OWNER.

PROVIDE A WRITTEN WARRANTY TO THE OWNER COVERING THE ENTIRE ELECTRICAL WORK TO BE FREE FROM DEFECTIVE MATERIALS, EQUIPMENT AND WORKMANSHIP FOR A PERIOD OF 1 YEAR AFTER DATE OF ACCEPTANCE.

CLEAN EXPOSED SURFACES OF LIGHT FIXTURES, SWITCHGEAR, AND OTHER EXPOSED ITEMS OF GREASE, DIRT OR OTHER FOREIGN MATERIAL. REMOVE RUBBISH AND DEBRIS RESULTING FROM THE OPERATIONS AND LEAVE EQUIPMENT SPACES CLEAN AND READY FOR USE.

MAINTAIN ALL CEILING, FLOOR AND WALL FIRE AND SMOKE PROTECTION RATINGS. SEAL ALL CONDUIT AND ENCLOSURE PENETRATIONS TO COMPLY WITH UL ASSEMBLY AND BUILDING CODE REQUIREMENTS. ALL SEALANTS AND CONSTRUCTIONS SHALL BE APPROVED BY OWNER PRIOR TO APPLICATION. ALL OPENINGS SHALL BE SEALED DAILY.

CONTRACT DRAWINGS FOR ELECTRICAL WORK ARE IN PART DIAGRAMMATIC, INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE GENERAL ARRANGEMENT OF EQUIPMENT, CONDUITS, AND APPROXIMATE SIZES AND LOCATIONS OF EQUIPMENT AND OUTLETS. MECHANICAL/ELECTRICAL TRADES SHALL FOLLOW THESE DRAWINGS IN LAYING OUT THEIR WORK, CONSULT GENERAL CONSTRUCTION DRAWINGS TO FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THEIR WORK, AND SHALL VERIFY SPACES IN WHICH THEIR WORK WILL BE INSTALLED. COORDINATE WORK WITH OTHER TRADES AND AS PROJECT CONDITIONS REASONABLY REQUIRE WITHOUT EXTRA COSTS TO OWNER.

<u>ELECTRICAL SPECIFIC:</u>
RACEWAYS SHALL BE LEFT WITH 30% FREE SPACE FOR FUTURE

SHARING OF NEUTRALS BETWEEN PHASES SHALL NOT BE ALLOWED.

SEPARATE GROUNDING CONDUCTORS SHALL BE PROVIDED IN ALL RACEWAYS.

CONDUCTORS SHALL BE COPPER. COLOR CODING SHALL BE NEC APPROVED AND AT MINIMUM SHALL BE AS FOLLOWS: 120/208 VOLT-BLACK, RED, BLUE FOR PHASE CONDUCTORS, WHITE FOR NEUTRAL CONDUCTORS. 277/480 VOLT-BROWN, ORANGE, YELLOW FOR PHASE CONDUCTORS, GRAY FOR NEUTRAL

ELECTRICAL SYSTEMS SHALL COMPLY WITH 2017 NATIONAL ELECTRICAL CODE AND BE INSTALLED BY LICENSED CONTRACTORS. LIGHTING SHALL COMPLY WITH THE 2018 IECC.

CONDUCTORS. GROUNDING CONDUCTORS SHALL BE GREEN.

<u>UTILITIES</u>: LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE EXACT LOCATIONS IN THE FIELD (NOT ALL UTILITIES ARE SHOWN).

APPLY FOR AND PAY FOR ALL PERMITS, FEES, LICENSES AND INSPECTIONS. ALL WORK IS SUBJECT TO APPROVAL BY THE CODE OFFICIAL AND ENGINEER. ALL CORRECTIONS SHALL BE MADE WITHOUT EXTRA COSTS TO OWNER.

# MOUNTING HEIGHTS

DESCRIPTION	HEIGHT UNLESS OTHERWISE NOTED						
THERMOSTAT, CONTROLLER	48"						
WALL SWITCH/ OCCUPANCY SENSOR	46"						
CONVENIENCE OUTLET	18"						
WALL SWITCHES	46"						
TELEPHONE/DATA/TV OUTLETS	18"						
FIRE ALARM MANUAL STATION	42"						
FIRE ALARM HORNS & STROBES	80"-96" AFF TO CENTER OF STROBE						
EXIT SIGN	CENTER, 4" ABOVE DOOR						
MANUAL MOTOR STARTER SWITCH	42"						
PANELBOARDS, CABINETS	72"						
MOUNTING HEIGHTS TO TOP OF BOX AND ABOVE FINISHED FLOOR GRADE UNLESS NOTED OTHERWISE. MATCH EXISTING MOUNTING HEIGHTS WHICH COMPLY WITH ADA REQUIREMENT.							



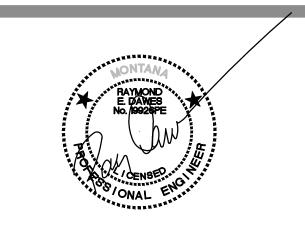
### CALL BEFORE YOU DIG

	ELECTRICAL A	BBRE	VIATIONS
AC	ALTERNATING CURRENT OR ARMORED	kV	KILOVOLT
	CABLE	kVA	KILOVOLT AMPERE
ACC AFC	ACCESSIBLE ABOVE FINISHED COUNTER, AUTOMATIC	kW kWH	KILOWATT KILOWATT HOUR
741 0	FREQUENCY CONTROL, OR AVAILABLE	KVVII	RESWATTHOOK
	FAULT CURRENT	LED	LIGHT EMITTING DIODE
AFF AFG	ABOVE FINISHED FLOOR ABOVE FINISHED GRADE	MAX	MAXIMUM
AHJ	AUTHORITY HAVING JURISDICTION	MCA	MINIMUM CIRCUIT AMPS
AIC	AMPERE INTERRUPTING CAPACITY	MCB	MAIN CIRCUIT BREAKER
AMP ATS	AMPERE AUTOMATIC TRANSFER SWITCH	MCC MDP	MOTOR CONTROL CENTER MAIN DISTRIBUTION PANEL
AUTO	AUTOMATIC	MECH	MECHANICAL
AV	AUDIO VISUAL	MH MIN	MANHOLE MINIMUM
BAS	BUILDING AUTOMATION SYSTEM	MOCP	MAXIMUM OVERCURRENT PROTECTION
BFF	BELOW FINISH FLOOR	MTS	MANUAL TRANSFER SWITCH
BLDG BRKR	BUILDING BREAKER	MVA MW	MEGAVOLT-AMPERE MEGAWATT
BYP	BY PASS	IVIVV	MEGAWATT
	CONDUIT	NA	NOT APPLICABLE
C CD	CONDUIT CONSTRUCTION DOCUMENTS	NC NEC	NORMALLY CLOSED  NATIONAL ELECTRICAL CODE
CF	CONTRACTOR FURNISHED	NEMA	NATIONAL ELECTRICAL
CP/CI	CONTRACTOR PROVIDED/CONTRACTOR	NEUT OF N	MANUFACTURERS ASSOCIATION
CP/OI	INSTALLED CONTRACTOR PROVIDED/OWNER	NEUT OR N NFPA	NEUTRAL NATIONAL FIRE PROTECTION
	INSTALLED		ASSOCIATION
CKT	CIRCUIT	NIC NO	NOT IN CONTRACT NORMALLY OPEN
CMU CRI	CONCRETE MASONRY UNIT COLOR RENDERING INDEX	NTS	NOT TO SCALE
CT	CURRENT TRANSFORMER		
CU CU FT	COPPER CUBIC FEET	OC OD	ON CENTER OUTSIDE DIAMETER
	CODICTEL	OP	OWNER PROVIDED
DC	DIRECT CURRENT	OP/CI	OWNER PROVIDED/CONTRACTOR
DEMO DPDT	DEMOLITION DOUBLE POLE, DOUBLE THROW	OP/OI	INSTALLED OWNER PROVIDED/OWNER INSTALLED
DPST	DOUBLE POLE, SINGLE THROW	os	OCCUPANCY SENSOR
DWG	DRAWING	RCP	REFLECTED CEILING PLAN
EC	ELECTRICAL CONTRACTOR	REC	RECESSED
ELEC	ELECTRIC OR ELECTRICAL	RECP	RECEPTACLE ROOM
ELEV EMER	ELEVATOR EMERGENCY	RM	ROOM
EMT	ELECTRICAL METALLIC TUBING	SD	SMOKE DETECTOR
EWC EWH	ELECTRIC WATER COOLER ELECTRIC WATER HEATER	SF SPEC	SQUARE FOOT (FEET) SPECIFICATION
EXIST	EXISTING	SPST	SINGLE POLE, SINGLE THROW
_,	FIDE ALABA	SPDT	SINGLE POLE, DOUBLE THROW
FA FACP	FIRE ALARM FIRE ALARM CONTROL PANEL	SWBD SWGR	SWITCHBOARD SWITCHGEAR
FC	FOOTCANDLE	-	
FLA	FULL LOAD AMPS	TC TP	TIME CLOCK
FLEX FP	FLEXIBLE METALLIC CONDUIT FIRE PROTECTION	TPS	TWISTED PAIR TWISTED PAIR SHIELDED
FT	FEET OR FOOT	TTB	TELEPHONE TERMINAL BOARD
G OR GND	GROUND	TV TYP	TELEVISION TYPICAL
GEN GND	GENERATOR	LIF	IIIIOAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	UL	UNDERWRITERS LABORATORY
НОА	HAND-OFF-AUTOMATIC	UON UPS	UNLESS OTHERWISE NOTED UNINTERRUPTIBLE POWER SUPPLY
HP	HORSEPOWER		
HZ	HERTZ	V OR VOLT VA	VOLTAGE VOLT AMPERE
IESNA	ILLUMINATION ENGINEERING SOCIETY	VFD	VARIABLE FREQUENCY DRIVE
ID	OF NORTH AMERICA	W	WATT
IR	INFRARED	vv WH	WATT WATER HEATER
J	JUNCTION BOX	WP	WEATHERPROOF
		XFMR	TRANSFORMER



517 7th street rapid city sd 57701 p 605.342.9470 f 605.342.2377 ww.fourfrontdesign.com

# DESIGN INC.



Revisions: Description

**AHJ Review** 04-26-22

### **RESUBMITTAL** 04/26/2022

**BUILDING DIVISION CITY OF HELENA** 

THIS SET OF APPROVED PLANS TO BE ON JOB SITE

THE LUX NIGHTCLUB 801 NORTH FEE STREET HELENA, MONTANA

**PERMIT COPY** 

AT ALL TIMES

**Project Number:** Issued for Permit:

ELECTRICAL LEGEND

AND ABBREVIATIONS

22.2620.M01

4/8/2022

### GENERAL NOTES

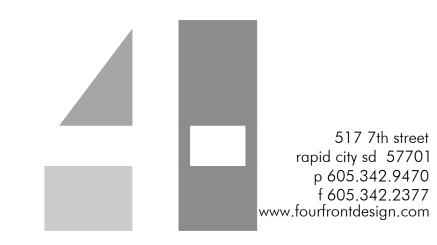
ANY DEMOLITION. HOMERUNS SHOWN TO BE REMOVED ARE ASSUMED BASED ON DEMOLITION WORK ON FLOOR PLAN. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES.

EXISTING LOADS ARE ESTIMATED BASED ON 1 YEAR PEAK DEMAND.

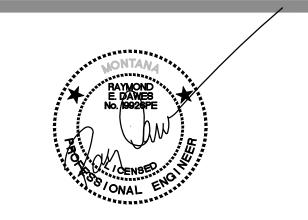
REMOVE EXISTING 100 AMP CONNECTED HOME RUN WIRING IN IT'S ENTIRETY. PREPARE SPACE FOR REUSE.

CONTRACTOR TO VERIFY EXISTING HOMERUNS PRIOR TO

BREAKER AND



## FOURFRONT DESIGN INC.



Revisions:

Description **AHJ Review** 

04-26-22

517 7th street

f 605.342.2377

# **RESUBMITTAL**

04/26/2022 **BUILDING DIVISION CITY OF HELENA** 

### (E) SUB-PANEL "SP1" PANEL LOCATION: MAIN FLOOR ELEC ROOM L-L VOLT: 208 PHASE: 1 L-N VOLT: 120 WIRES: 3 BREAKER 100A MFR/MODEL: SQUARE D - NQ WIRE SIZE: EXISTING FED FROM: PANEL "A" RATED AMP: 100 NEUTRAL 100% MOUNT: RECESSED COND. SIZE: EXSISTING T/S/O/M O-LOAD R-LOAD L-LOAD AMP POLE TYPE TYPE POLE AMP L-LOAD R-LOAD O-LOAD PHASE DESCRIPTION DESCRIPTION SPARE SPARE SPARE UNLABLED 13 A 14 15 B 16 17 A 18 UNLABLED LOAD SUMMARY CONNECTED LOADS SUMMARY CONNECTED LOADS H (VOLT-AMPERES) H LEGEND/KEY CONN. KVA D.F AMPERAGE FED TO PANEL TOTAL CONNECTED LOAD 56.0 AMP T=TRANSFORMER RECEPTACLES (FIRST 10KW) TOTAL DEMAND LOAD 56.0 AMP 11.7 KVA S=SUBFEED RECEPTACLES (REMAINDER) DESIGN (MAX) 100 AMP 24.0 KVA O=OTHER MOTORS LARGEST MOTOR SPARE LOAD 44 AMP 12.3 KVA M=MOTOR A=APPLIANCE CONNECTED LOAD BALANCE SUMMARY E=EQUIPMENT APPLIANCES PHASE A 55.3 AMP 6.633 KVA H-HEATING PHASE B 5.025 KVA R=RECEPTACLES EQUIPMENT 41.9 AMP HEATING L=LIGHTING 0.0 | 1.0 | TRANSFORMER ... CONN.=CONNECTED 24 % DEM.=DEMAND SPR=SPARE 11.7 KVA 56.0 AMP 11.7 KVA SPC=SPACE OTAL KVA 56.0 AMP 100 AMP 44.0 AMP TOTAL AMP D.F.=DEMAND FACTOR DESIGN (MAX) GFCI=GROUND FAULT CIRCUIT ST-SHUNT TRIP

(E) PANEL "A"

PHASE: 3

PHASE

7 A 8 9 B 10

15 B 16 17 C 18

29 C 30

LOAD

TOTAL CONNECTED LOAD 300.9 AMP

CONNECTED LOAD BALANCE SUMMARY

106.3 AMP DERATED BASED ON 2016 NEC TABLE 310.15(B)(3)(a)

TOTAL DEMAND LOAD

H (VOLT-AMPERES) H 18652

WIRES: 4

MAIN: LUG

O-LOAD R-LOAD L-LOAD SIZE INSULATION GND

(E) | (E) | 100 |

WIRE SIZE: (EXISTING)

COND. SIZE: (EXISTING)

A 6996

S 11653

293.7 AMP

400 AMP

106 AMP

291.4 AMP

325.4 AMP

286.6 AMP

-12 % 12 %

105.8 KVA NOTE: ALL BRANCH WIRE SIZING IS BASED ON CIRCUIT SHOWN BEING THE ONLY CIRCUIT

293.7 AMP WITHIN THE CONDUIT. AT CONTRACTOR OPTION UP TO 3 CIRCUITS MAY BE RUN TOGETHER IN

400 AMP A SINGLE CONDUIT AS LONG AS THEY DO NO SHARE A NEUTRAL AND CONDUCTORS ARE

E 0 11655 11655

105.8 KVA

144.1 KVA

38.3 KVA

34.966 KVA

34.387 KVA

39.05 KVA

BREAKER 400 AMP

FED FROM: SERVICE DISCONNECT

DESCRIPTION

NORTH A/C-HEAT

BASEBOARDS BASEMENT

OVEN/GRILL

SUMMARY CONNECTED LOADS

LEGEND/KEY

S=SUBFEED

O=OTHER

M=MOTOR

H-HEATING

L=LIGHTING

A=APPLIANCE

E=EQUIPMENT

R=RECEPTACLES

DEM.=DEMAND

ST-SHUNT TRIP

SPR=SPARE SPC=SPACE

CONN.=CONNECTED

D.F.=DEMAND FACTOR

GFCI=GROUND FAULT CIRCUIT

T=TRANSFORMER

MOUNT: RECESSED

L-L VOLT: 208 L-N VOLT: 120

12824 A

D.F DEM. KVA AMPERAGE FED TO PANEL

0.0 SPARE LOAD

∃PHASE A

PHASE B

PHASE C

А ТО В

6996

0.5 6.7 DESIGN (MAX)

1.0 1.25

1.0 25.6

1.0 2.3

1.0

BREAKER BRANCH WIRE
TYPE POLE AMP SIZE INSULATION GND L-LOAD R-LOAD O-LOAD T/S/O/W A/E/H

RATED AMP: 400 NEUTRAL 100%

PANEL LOCATION: MAIN FLOOR ELECTRICAL ROOM

20 (E)

CONN. KVA

108.4 KVA

300.9 AMP

1 20 (E) (E) (E)

(E)

MFR/MODEL: SQUARE D - NQ

BSM STEPS/LIGHTS BSM

DISH WASHER

WALK IN COOLER

SOUTH A/C- HEAT

OVEN/GRILL

DESCRIPTION

RECEPTACLES (FIRST 10KW)

RECEPTACLES (REMAINDER)

LARGEST MOTOR

TRANSFORMER

APPLIANCES

SUBFEED

OTHER

TOTAL AMP

DESIGN (MAX

EQUIPMENT

SUMMARY CONNECTED LOADS

PKER MACH/BSMT STORAGE

REC BSM MEETING ROOM

REMOVE CONNECTED WIRING. MAINTAIN —

EXISTING BREAKER AS SPARE

RELOCATE WALK IN COOLER BREAKER TO ----SPACE 34 AND 36 ON PANEL.PREPARE

REMOVE CONNECTED HOME RUN WIRING — IN IT'S ENTIRETY AND MAINTAIN EXISTING

SPACE FOR REUSE.

BREAKER AS SPARE

PERMIT COPY THIS SET OF APPROVED PLANS TO BE ON JOB SITE AT ALL TIMES

### THE LUX NIGHTCLUB 801 NORTH FEE STREET HELENA, MONTANA

Project Number:

Issued for Permit:

**EXISTING ELECTRICAL** PANEL SCHEDULES

22.2620.M01

4/8/2022

### GENERAL NOTES

CONTRACTOR TO VERIFY EXISTING HOMERUNS PRIOR TO ANY DEMOLITION. HOMERUNS SHOWN TO BE REMOVED ARE ASSUMED BASED ON DEMOLITION WORK ON FLOOR PLAN. CONTRACTOR TO NOTIFY ENGINEER OF ANY DISCREPANCIES.

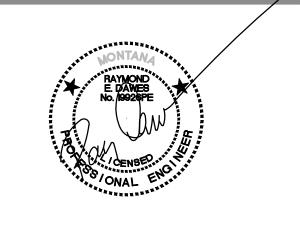
D.F.=DEMAND FACTOR

ST-SHUNT TRIP

GFCI=GROUND FAULT CIRCUIT



## FOURFRONT DESIGN INC.



Revisions:

Description **AHJ Review** 

04-26-22

RESUBMITTAL 04/26/2022

**BUILDING DIVISION CITY OF HELENA** 

MAIN: LUG PANEL LOCATION: MAIN FLOOR ELECTRICAL ROOM L-L VOLT: 208 BREAKER 400 AMP MFR/MODEL: SQUARE D - NQ WIRES: 4 FED FROM: SERVICE DISCONNECT L-N VOLT: WIRE SIZE: (EXISTING) RATED AMP: 400 NEUTRAL 100% COND. SIZE: (EXISTING) MOUNT: RECESSED L-LOAD R-LOAD O-LOAD T/S/O/M/ T/S/O/M /A/E/H O-LOAD R-LOAD L-LOAD DESCRIPTION PHASE DESCRIPTION SPARE DISH WASHER 13 A 14 SUB PANEL SP1 | 15 | B | 16 | 200 (4) 300 AL SUB PANEL SP2 NORTH A/C-HEAT SOUTH A/C- HEAT 20 2 WALK IN COOLER OVEN/GRILL OVEN/GRILL A 41 C 42 A 10494 A A 6996 35205 S 11656 SUMMARY CONNECTED LOADS 11655 6993 LOAD E 0 11655 11655 SUMMARY CONNECTED LOADS 6996 (VOLT-AMPERES) H 9326 DESCRIPTION CONN. KVA DEM. KVA AMPERAGE FED TO PANEL 400 AMP LEGEND/KEY T=TRANSFORMER TOTAL CONNECTED LOAD 346.9 AMP 125.0 KVA RECEPTACLES (FIRST 10KW) 10.0 10.0 TOTAL DEMAND LOAD 325.0 AMP 117.1 KVA S=SUBFEED RECEPTACLES (REMAINDER) 4.3 DESIGN (MAX) 400 AMP 144.1 KVA O=OTHER M=MOTOR 75 AMP 27.0 KVA SPARE LOAD LARGEST MOTOR A=APPLIANCE APPLIANCES CONNECTED LOAD BALANCE SUMMARY E=EQUIPMENT 0.8 1.0 365.7 AMP H-HEATING SUBFEED 46.9 PHASE A 43.879 KVA PHASE B 367.0 AMP R=RECEPTACLES EQUIPMENT 44.036 KVA 308.7 AMP PHASE C 37.047 KVA L=LIGHTING TRANSFORMER CONN.=CONNECTED OTHER 0 % DEM.=DEMAND SPR=SPARE 16 % SPC=SPACE -18 % 117.1 KVA NOTE: ALL BRANCH WIRE SIZING IS BASED ON CIRCUIT SHOWN BEING THE ONLY CIRCUIT

75.0 AMP DERATED BASED ON 2016 NEC TABLE 310.15(B)(3)(a)

REMODELED PANEL "A"

CONNECT NEW HOME RUN — WIRING FOR GAME ROOM RECEPTACLES TO EXISTING SPARE BREAKERS

OTAL AMP

DESIGN (MAX)

346.9 AMP

INSTALL NEW 200 AMP -

PANEL "SP2"

DESCRIPTION

RECEPTACLE W

RECEPTACLE CENTRAL RM

BILLIARD LIGHTS RECEPTACLE EAST

LIGHTING SE

PATIO DISCONNECT

WH-1

WH-2

MUA-1

SPARE

SPARE SPARE

SPARE

SPARE

SUMMARY CONNECTED LOADS

LEGEND/KEY

S=SUBFEED

O=OTHER

M=MOTOR

H-HEATING

L=LIGHTING

DEM.=DEMAND

SPR=SPARE

SPC=SPACE

ST-SHUNT TRIP

A=APPLIANCE

E=EQUIPMENT

R=RECEPTACLES

CONN.=CONNECTED

D.F.=DEMAND FACTOR

GFCI=GROUND FAULT CIRCUIT

T=TRANSFORMER

BREAKER FOR SUB-FEED TO

BREAKER 100 A

THHN #12 Cu

THHN #10 Cu 30

THHN |#10 Cu | 30 |

FED FROM: PANEL "A"

MOUNT: RECESSED

**NEW SUB PANEL"SP2"** 

WIRES: 4

RATED AMP: 225 NEUTRAL 100% COND. SIZE: EXISTING

PHASE

3078 A 13 A 14 A 2250

3078 A 15 B 16 A 2250

41 C 42

H (VOLT-AMPERES) H

CONNECTED LOAD BALANCE SUMMARY

86.6 AMP DERATED BASED ON 2016 NEC TABLE 310.15(B)(3)(a)

A 7770

112.9 AMP

113.4 AMP

200 AMP

87 AMP

99.2 AMP

99.8 AMP

95.5 AMP

-1 %

4 %

40.9 KVA NOTE: ALL BRANCH WIRE SIZING IS BASED ON CIRCUIT SHOWN BEING THE ONLY CIRCUIT

200 AMP A SINGLE CONDUIT AS LONG AS THEY DO NO SHARE A NEUTRAL AND CONDUCTORS ARE

113.4 AMP WITHIN THE CONDUIT. AT CONTRACTOR OPTION UP TO 3 CIRCUITS MAY BE RUN TOGETHER IN

-4 %

4500 3242

40.7 KVA

40.9 KVA

72.1 KVA

31.2 KVA

11.904 KVA

11.98 KVA

11.459 KVA

456 H 25 A 26

WIRE SIZE: EXISTING

T/S/O/M /A/E/H O-LOAD R-LOAD L-LOAD

L-L VOLT: 208

9234

3576

3078

1.0

1.0

D.F DEM. KVA AMPERAGE FED TO PANEL

4.3 TOTAL CONNECTED LOAD

DESIGN (MAX)

SPARE LOAD

PHASE A

PHASE B

PHASE C

А ТО В

в то с

TOTAL DEMAND LOAD

L-LOAD R-LOAD O-LOAD 1/5/0/100 A/E/H

1440

1440

PANEL LOCATION: MAIN FLOOR ELECTRICAL ROOM

THHN

THHN

THHN

2 | 50 | #8 Cu | THHN | #8 Cu |

1 20 #12 Cu THHN #12 Cu

50 #8 Cu

20 |#12 Cu

CONN. KVA

3.4

10.0

THHN #12 C

THHN #12 Cu THHN #12 Cu

THHN #8 Cu

MFR/MODEL: SQUARE D - NQ

DESCRIPTION

RECEPTACLE N-W

RECEPTACLE N

RECEPTACLE RESTROOMS

RECEPTACLE CENTRAL RM

RECEPTACLE SE

LIGHTING NW

CU-1

CU-2

SPARE

SPARE

RECEPTACLES (FIRST 10KW)

RECEPTACLES (REMAINDER)

LARGEST MOTOR

APPLIANCES

EQUIPMENT

OTAL AMP

DESIGN (MAX)

SUMMARY CONNECTED LOADS

							REMO	DEL	ED S	UB-P	ANEL "	SP1"							
PANEL LOCATIO	n: <u>Main</u> f	LOOR	ELEC I	ROOM		L-L VOLT:	208		HASE:		-	Main: Lug			BRE	A			
MFR/MODE	L-N VOLT:		. V	VIRES:	3	WIRE SIZE: EXISTING						DM: PANEL "A"							
Al	C: 10,000	)			R	ATED AMP:	100	NE	UTRAL	100%	COI	ND. SIZE:	EXSISTI	NG .		NOM	NT: RECESSED		
DESCRIPTION	RIPTION BREAKER TYPE POLE AMP L-LOAD		R-LOAD	O-LOAD	T/S/O/M/ A/E/H	PHASE		Ē	T/S/O/M /A/E/H	O-LOAD	R-LOAD	L-LOAD		REAKER POLE TYI	DESCRIPTION				
GAMING ROOM		1	20		720			1	Α	2			720		20	1	GAMING ROOM		
GAMING ROOM		1	20		720			3	В	4			720		20	1	GAMING ROOM		
UNLABLED		1	20			804		5	Α	6		804			20	1	UNLABLED		
UNLABLED		1	20			804		7	В	8		804			20	1	UNLABLED		
UNLABLED		2	50			1005		9	Α	10		804			20	1	UNLABLED		
UNLABLLD			30			1005		11	В	12		603			30	2	UNLABLED		
UNLABLED		1	20			804		13	Α	14		603			00	_	ONLADILD		
UNLABLED		1	20			804		15	В	16		1005			50	2	UNLABLED		
UNLABLED		1	20			804		17	Α	18		1005			00	_			
SPACE								19	В	20							SPACE		
SPACE								21	Α	22							SPACE		
						0	М				M	0							
						0	Α				Α	0							
						0	S				S	S 0							
SUMMARY CONN	IECTED	LOADS		0	1440	0	Е	LOAD		E	0	1440	0		SUMMARY CONNECTED LOADS				
						0	Н	(VOLT-AMPERES)		ERES)	Н	0							
						0	Т				T	0							
						6030	0				0	5628							
DESCRIPTION		CON	N. KVA	D.F	DEN	Л. KVA	AMPERA	RAGE FED TO PANEL			100	AMP				LEG	GEND/KEY		
LIGHTING		0	0.0	1.25	(	0.0	TOTAL CONNECTED LOAD			69.9	AMP	14.5 KVA			T=TRANSFORMER				
RECEPTACLES (FIRST	10KW)		.9	1.0		2.9	TOTAL DEMAND LOAD			69.9 AMP 14.5 KVA			KVA		S=SUBFEED				
RECEPTACLES (REMAI	NDER)	0	0.0	0.5		0.0	DESIGN (MAX)				100 AMP 24.0 KVA			KVA		O=	OTHER		
MOTORS		0	0.0	1.0	(	0.0	SPARE L	.OAD			30	AMP	9.5	KVA		M=1	MOTOR		
ARGEST MOTOR		0	0.0	1.25		0.0										APPLIANCE			
APPLIANCES		0	.0	1.0	(	0.0	CONNECTED LOAD BALANC				E SUMMARY					E=E	EQUIPMENT		
SUBFEED		0	.0	8.0	(	0.0	PHASE A			67.3	AMP	8.073	KVA		H-HEATING				
EQUIPMENT		0	.0	1.0	(	0.0	PHASE B	}			53.9	53.9 AMP 6.465 KVA				R=I	RECEPTACLES		
HEATING		0	.0	1.0	(	0.0										L=L	IGHTING		
TRANSFORMER		0	.0	1.0		0.0										co	NN.=CONNECTED		
OTHER		1′	1.7	1.0	1	1.7	а то в				20	%				DE	M.=DEMAND		
																SPI	R=SPARE		
TOTAL KVA		14.5	KVA		14.5	KVA										SP	C=SPACE		
TOTAL AMP		69.9	AMP		69.9	AMP										D.F	.=DEMAND FACTOR		
DESIGN (MAX)					100	AMP										GF(	CI=GROUND FAULT CIRCUIT		
SPARE					30.1	AMP										l ST-	SHUNT TRIP		

325.0 AMP WITHIN THE CONDUIT. AT CONTRACTOR OPTION UP TO 3 CIRCUITS MAY BE RUN TOGETHER IN

400 AMP A SINGLE CONDUIT AS LONG AS THEY DO NO SHARE A NEUTRAL AND CONDUCTORS ARE

— CONNECT NEW HOME RUN WIRING FOR GAME ROOM RECEPTACLES TO EXISTING SPARE BREAKERS.

- REINSTALL 20 AMP 2 POLE

RECONNECT HOME RUN

COOLER IN NEW PANEL

WIRING SERVING WALK-IN

SPACES 27 & 29.

LOCATION SHOWN

BREAKER REMOVED FROM

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THE LUX NIGHTCLUB 801 NORTH FEE STREET HELENA, MONTANA

Project Number: Issued for Permit:

REMODELED ELECTRICAL PANEL SCHEDULES

22.2620.M01

4/8/2022

				LIGHTING FIXTURE SCHEDULE										
SYMBOL	LETTER DESIG.					LAMP	NOT	ES	HYPERLINK					
01111102	DESIG.	MANUFACTURER	DESCRIPTION	CATALOG NO.	LOCATION	TYPE	HEIGHT	TYPE	NO.	WATTS	LUMEN		1	
	Α	-	(E) 2 X 4 FLAT PANEL	-	CEILING	RECESSED	8'	FLUO	-	56	-	-	-	
	В	-	(E) 2' VANITY LIGHT	-	WALL	SURFACE	7' 6"	STD	-	18	-	-	-	
<del>•</del>	С	-	(E) CEILING SOCKET	-	CEILING	SURFACE	8'	STD	-	60	-	-	-	
•	Е	-	(E) 4" RECESSED CAN	-	CEILING	RECESSED	8'	STD	-	16	-	-	-	
	F	-	(E) T8-4 FLUORESCENT LIGHT	-	CEILING	SURFACE	9'	FLUO	-	32	-	-	-	
<del>•</del>	G	ELITE LIGHTING	6" BAFFLE ROUND SLIM LED FIXTURE	RL679-700L-DIMTR-120-27K-90-WH	CEILING	RECESSED	8'	LED	-	12	700	1,2	D	SPEC
<del>0</del>	Н	LARSON ELECTRONICS	CLASS 1 DIV 2 LAMP HOUSING	HAL-CRNM-NLA-1227-CLG	CEILING	SURFACE	-	LED	-	100	-	1,2,5	-	SPEC
4'	I	ELITE LED LIGHTING	2 CIRCUIT TRACK (4' LENGTH)	ET2004-B	CEILING	TRACK	1	LED	-	120	-	1,2,6	-	SPEC
<del>•</del>	J	ELITE LED LIGHTING	HIGH CRI TRACK LIGHT	ET-LED-372-900L-DIMTR-120-FL-40K-ABK	CEILING	PENDANT	1	LED	-	13	900	1,2	D	SPEC
	K	ELITE LED LIGHTING	LED INDUSTRIAL WRAP AROUND	4-ORW-LED-4000L-DIM10-MVOLT-35K-85	CEILING	SURFACE	8'	LED	-	30	3935	1,2	-	SPEC
2	L	COMPASS LIGHTING	SLIM LED AC/EM OUTDOOR	CUSO BK	WALL	SURFACE	7' 6"	LED	-	3	1600	1,2	А	SPEC
	М	ELITE LED LIGHTING	2' VANITY LIGHT	2-OVL-LED-2000L-DIM10-MVOLT-30K-90	WALL	SURFACE	7' 6"	LED		26	2000	1,2		SPEC
⊗	Х	-	(E) EXIT SIGN	-	WALL	SURFACE	7' 6"	LED	_	5	-	-	Е	
1201	X1	-	(E) EGRESS EXIT SIGN	-	WALL	SURFACE	7' 6"	LED	-	12	1092	_	Е	
1 <del>(2)</del> 1	X2	DUAL-LITE	EGRESS EXIT SIGN	HCX-U-R-W-03L	WALL	SURFACE	7' 6"	LED	-	10	-	1,2,3,4	E	SPEC
	Х3	DUAL-LITE	EGRESS EMERGENCY LIGHT	EVHC-12-I-06L	WALL	SURFACE	7' 6"	LED	_	12	1092	1,2,3	Е	SPEC

COLOR/FINISH TO BE DETERMINED BY ARCHITECT.

PROVIDE ALL NECESSARY HARDWARE OR KITS FOR MOUNTING LUMINAIRE AS NOTED BY LOCATION AND TYPE. CONNECT TO NEAREST UNSWITCHED CIRCUIT.

REFER TO PLANS FOR DIRECTIONAL ARROWS, SINGLE OR DOUBLE SIDED, AND MOUNTING TYPE WILL BE WALL MOUNTED UNLESS OTHERWISE NOTED ON PLANS.

PROVIDE LUMINAIRE WITH 4000k 10W LED BULB.

PROVIDE TRACK WITH CURRENT LIMITING DEVICE. FOR 4' LENGTH 120 WATT CURRENT LIMITER SHALL BE PROVIDED.

CONTROL NOTES: A. ON BOARD OCCUPANCY SENSING.

B. ON BOARD PHOTO CONTROL.

C. 0-10 V DIMMING. D. TRIAC DIMMING.

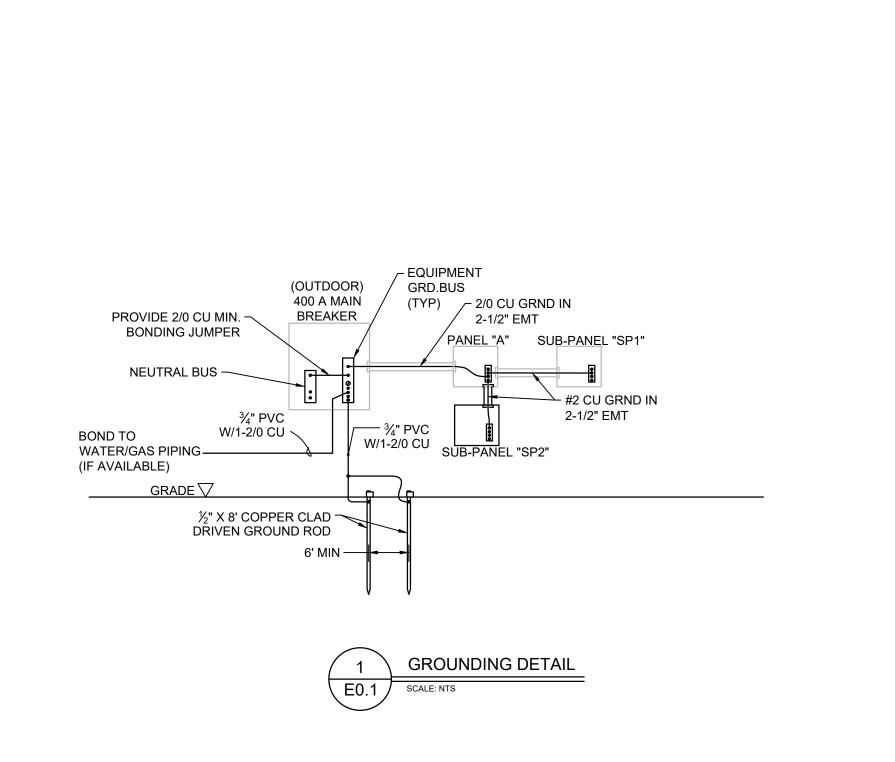
E. EMERGENCY BACKUP BATTERY ON FIXTURES WITH ADDITIONAL E TAG.

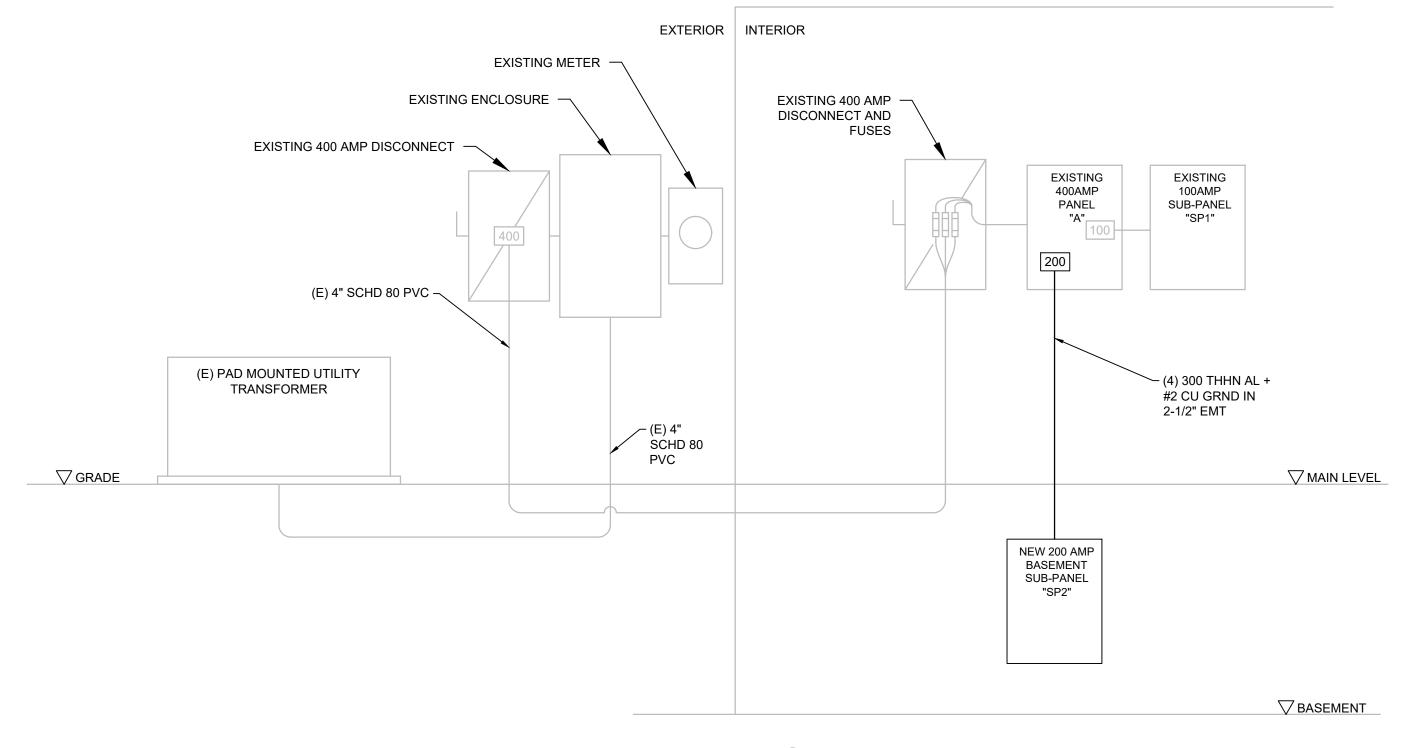
	AON = AUTO ON AOF = AUTO OFF MON = MANUAL ON	MOF = MANUAL OFF	LIGHTING COI	_	SCHE E DELAY OFF		AY LIGHT DE	ETECTION	3W =	THREE WAY		4W = 4 WA	λΥ	E = ENAE	SLED	E	) = DISABLE	D	
SWITCH	DESCRIPTION	MANUFACTURER	MODEL	LIGHTING AMP	FAN AMP	LIGTHING + FAN AMP				CON	ITROL OPTI	ONS						NOTES	HYPERLINK
SYMBOL	5253 til 11614			RATING	RATING	RATING	AON	AOF	MON	MOF	MOWO	TDO	DLD	3W	4W	0-10V DIM	TRIAC DIM		TITI EKEMIK
\$	WALL SWITCH	HUBBELL	CS120	20	20	20	-	-	E	Е	-	-	-	-	-	-	-	1	<b>SPEC</b>
<b>\$</b> 3	THREE WAY SWITCH	HUBBELL	CS320	20	20	20	-	-	E	Е	-	-	-	E	-	-	-	1	SPEC
\$os	WALL OCCUPANCY SENSOR SWITCH	LUTRON	MS-OPS6M2U-DV	6	3	3	D	E	E	Е	D	30m	D	-	-	-	-	1	SPEC
(OS)	CEILING OCCUPANCY SENSOR SWITCH	HUBBELL	OMNI-DT-500	.033	.033	.033	Е	Е	-	-	-	30m	-	-	-	-	-	2	SPEC
NOTES:			·																-

COORDINATE COLOR WITH OWNER/ARCHITECT. SENSOR IS RATED FOR 24VDC INSTEAD OF LINE VOLTAGE. CONTRACTOR TO PROVIDE NECESSARY RELAYS AND WIRING COMPONENTS FOR A COMPLETE INSTALLATION.

PROVIDE SWITCHES WITH LOW VOLTAGE POWER PACKS AS REQUIRED.

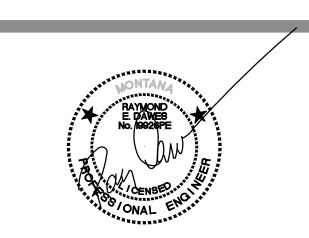
							SCHEDULE OF D	ISCONNECTS								
EQUIPMENT			CONNEC	TED LOAD				DISCONNECT	FUSE							
	HP	w	FLA	MCA	PH	VOLTS	TYPE	MFR.	CATALOG NO.	TYPE	SIZE	POLES	SIZE	TYPE	GRND	NOTES
CU-1	-	-	-	29.6	1	208	GENERAL DUTY FUSED	SCHNEIDER ELECTRIC	D221NRB	CARTRIDGE CLASS R	50A	2	(3) #8	THHN	#8	-
CU-2	-	-	-	29.6	1	208	GENERAL DUTY FUSED	SCHNEIDER ELECTRIC	D221NRB	CARTRIDGE CLASS R	50A	2	(3) #8	THHN	#8	-
F-1	1	-	-	13.3	1	120	FUSESTAT	COOPER	BP/SSU	EDISON BASE CLASS T	15A	1	(2) #12	THHN	#12	-
F-2	1	-	-	13.3	1	120	FUSESTAT	COOPER	BP/SSU	EDISON BASE CLASS T	15A	1	(2) #12	THHN	#12	-
WH-1	-	4500	-	-	1	208	GENERAL DUTY FUSED	SCHNEIDER ELECTRIC	D221NRB	CARTRIDGE CLASS R	30A	2	(3) #10	THHN	#10	-
WH-2	-	4500	-	-	1	208	GENERAL DUTY FUSED	SCHNEIDER ELECTRIC	D221NRB	CARTRIDGE CLASS R	30A	2	(3) #10	THHN	#10	-
UH-1	1/4	-	3.8	-	1	120	FUSESTAT	COOPER	BP/SSU	EDISON BASE CLASS T	5A	1	(2) #12	THHN	#12	-
EF-1	.14	-	2.45	-	1	120	FUSESTAT	COOPER	BP/SSU	EDISON BASE CLASS T	5A	1	(2) #12	THHN	#12	-
EF-2	.14	-	2.45	-	1	120	FUSESTAT	COOPER	BP/SSU	EDISON BASE CLASS T	5A	1	(2) #12	THHN	#12	-
MUA-1	1/3	-	7.2	-	1	120	FUSESTAT	COOPER	BP/SSU	EDISON BASE CLASS T	10A	1	(2) #12	THHN	#12	-





ONE-LINE DETAIL

f 605.342.2377 www.fourfrontdesign.com FOURFRONT DESIGNINC.



Revisions:

Description AHJ Review

04-26-22

517 7th street rapid city sd 57701 p 605.342.9470

RESUBMITTAL 04/26/2022 **BUILDING DIVISION CITY OF HELENA** 

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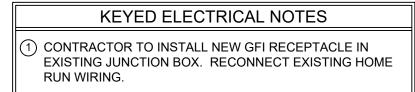
THE LUX NIGHTCLUB 801 NORTH FEE STREET HELENA, MONTANA

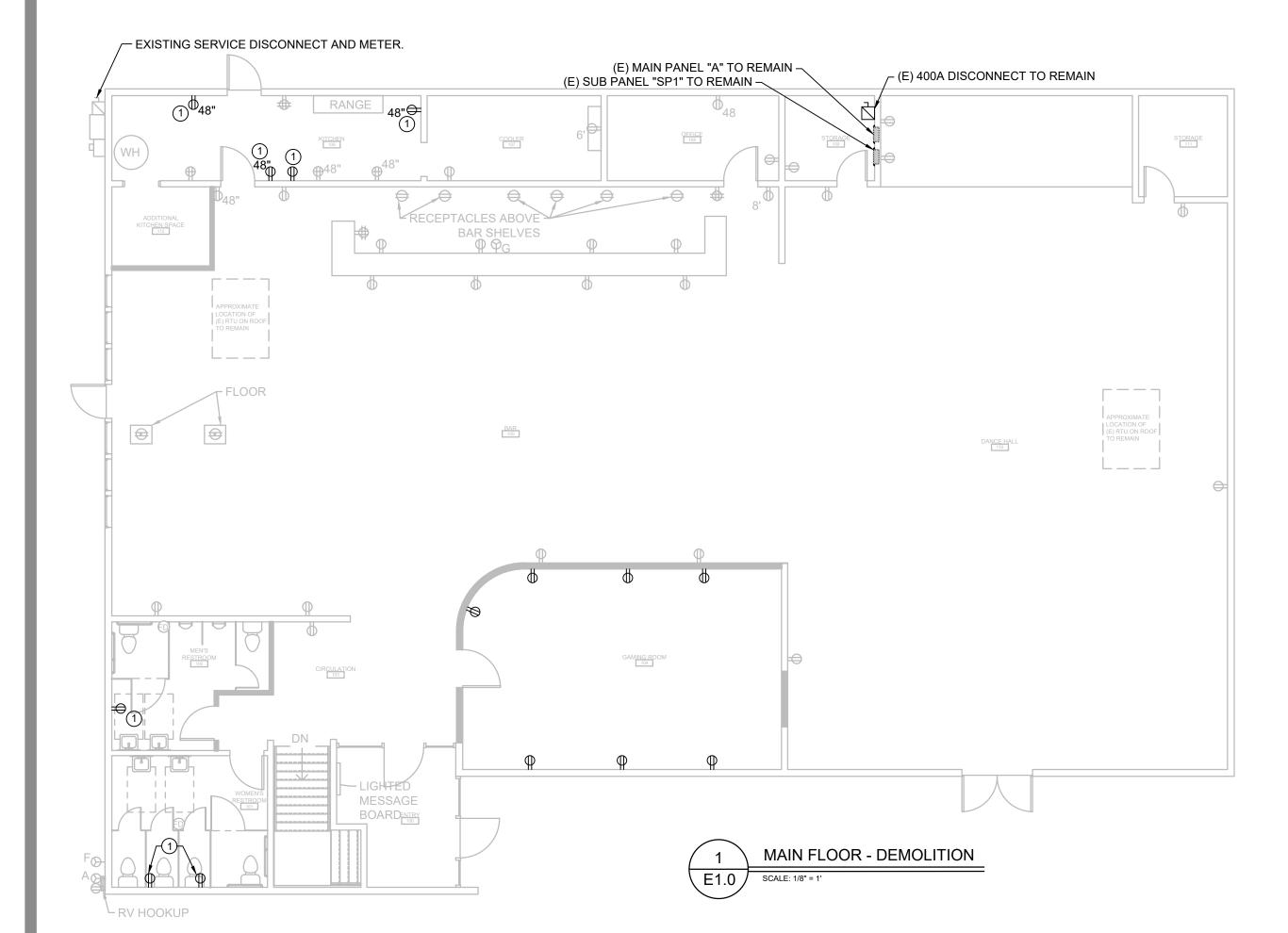
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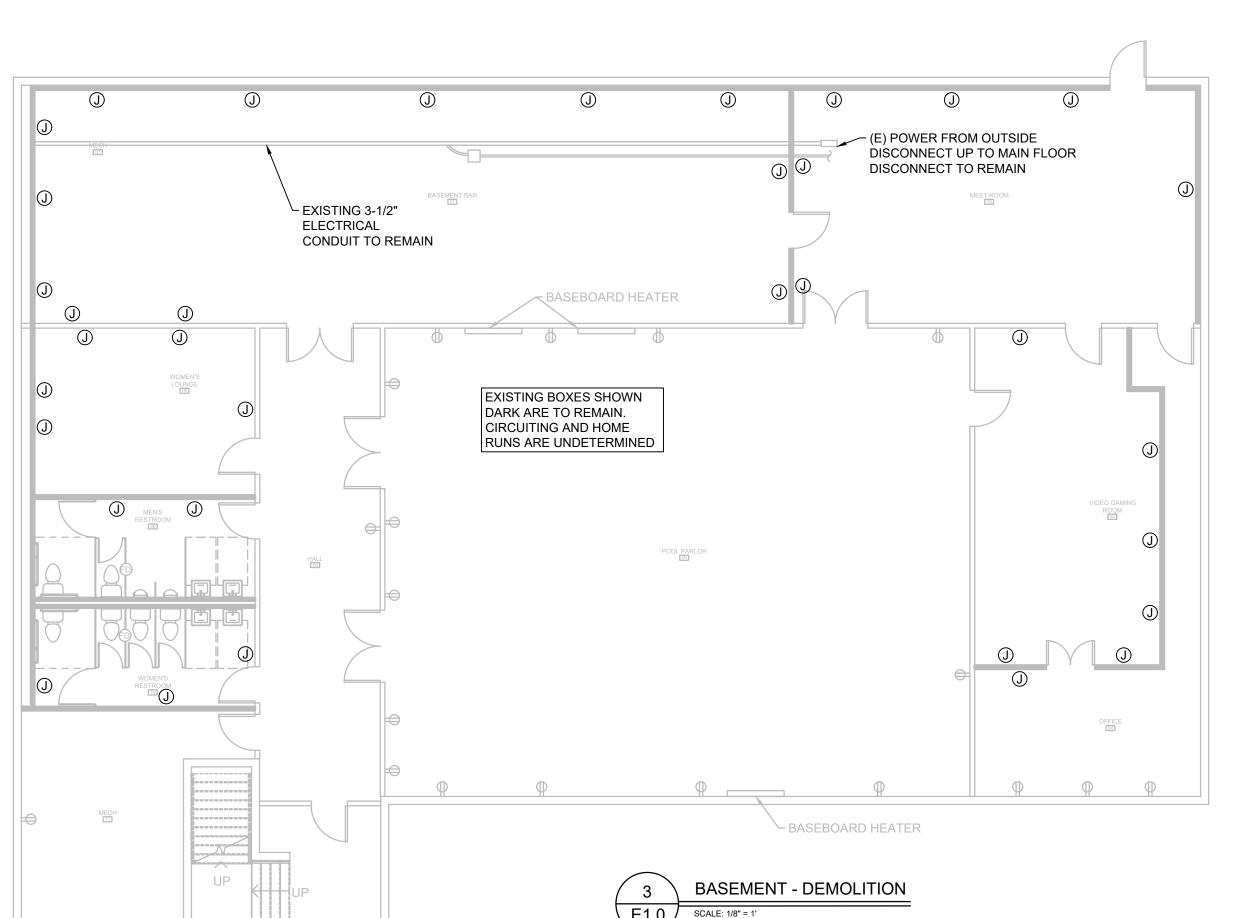
ONE-LINE DETAIL

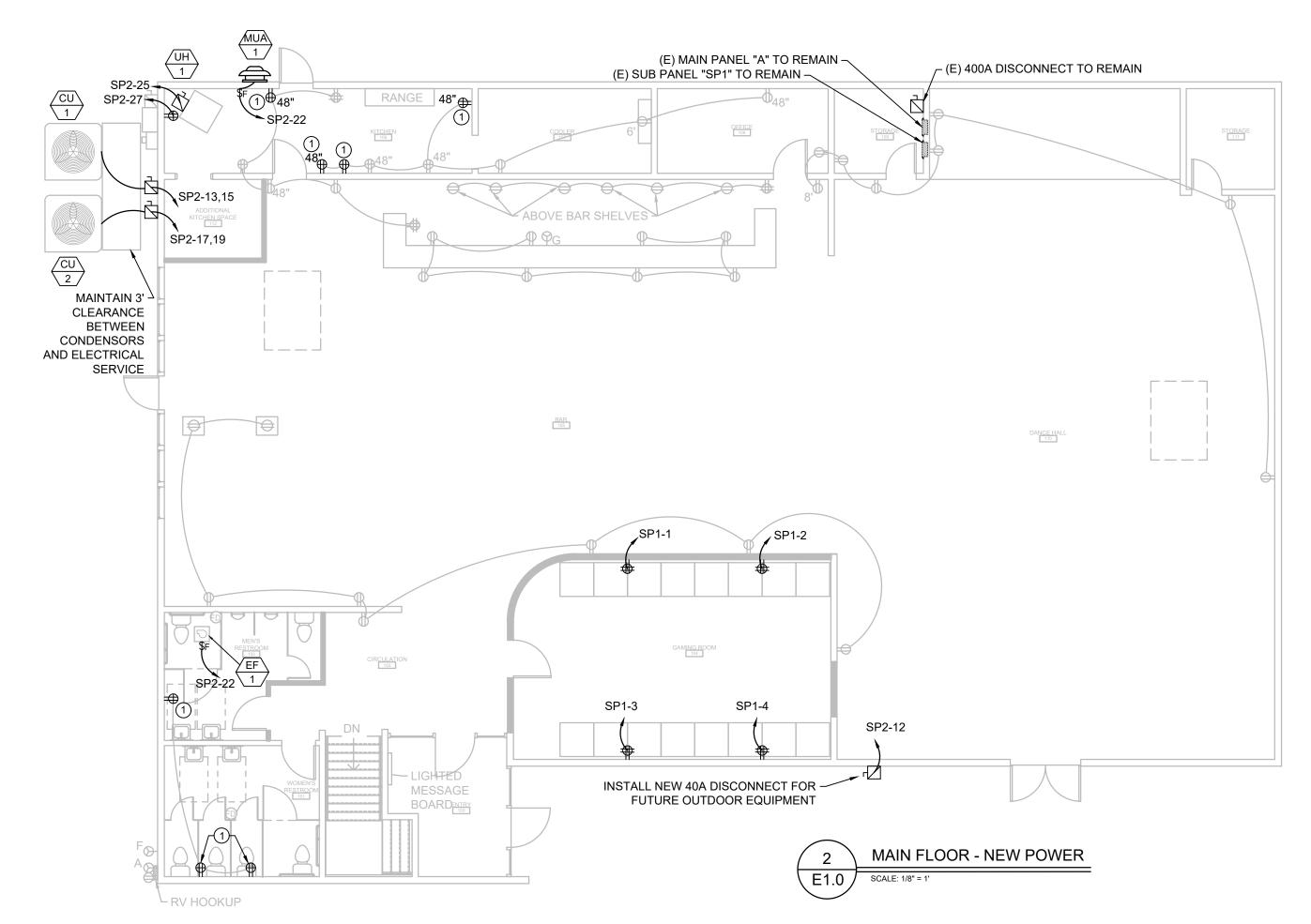
22.2620.M01

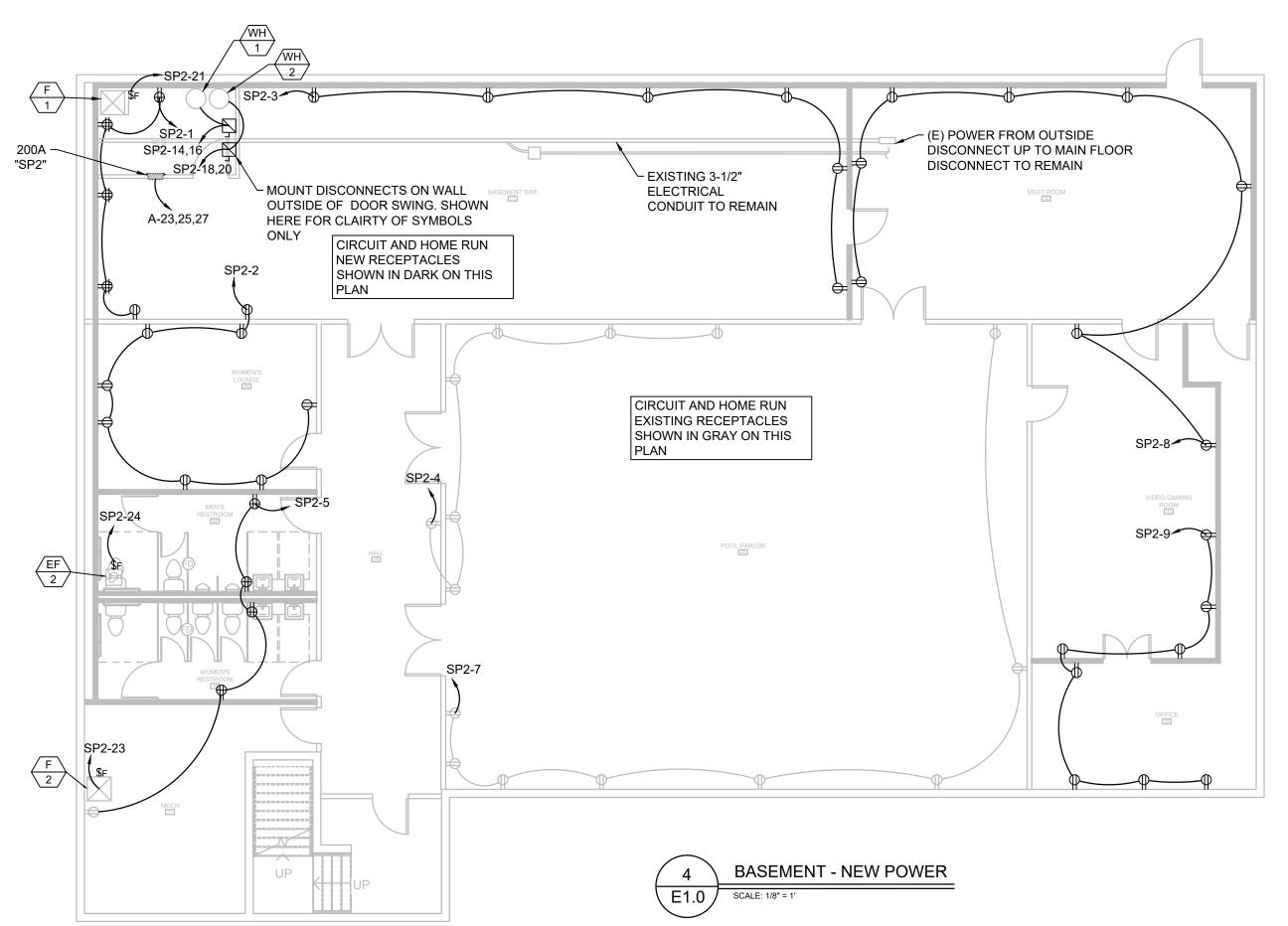
4/8/2022

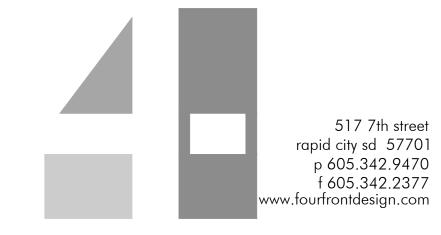




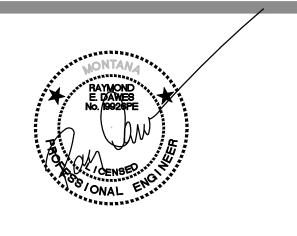








FOURFRONT DESIGNINC.



Date

Revisions:

# Description

AHJ Review 04-26-22

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04/26/2022

BUILDING DIVISION
CITY OF HELENA

SLUBUNDOO LINE Projection of the Projection of t

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THE LUX NIGHTCLUB
801 NORTH FEE STREET
HELENA, MONTANA

Project Number:

Issued for Permit:

r: 22.2620.M01 nit: 4/8/2022

POWER PLANS

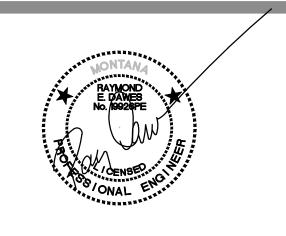
E 1.0



1 INSTALL JUNCTION BOXES IN CEILING FOR BILLIARD LIGHTS. FIXTURE TO BE PROVIDED BY OWNER, INSTALLED BY CONTRACTOR. COORDINATE LOCATIONS WITH OWNER.







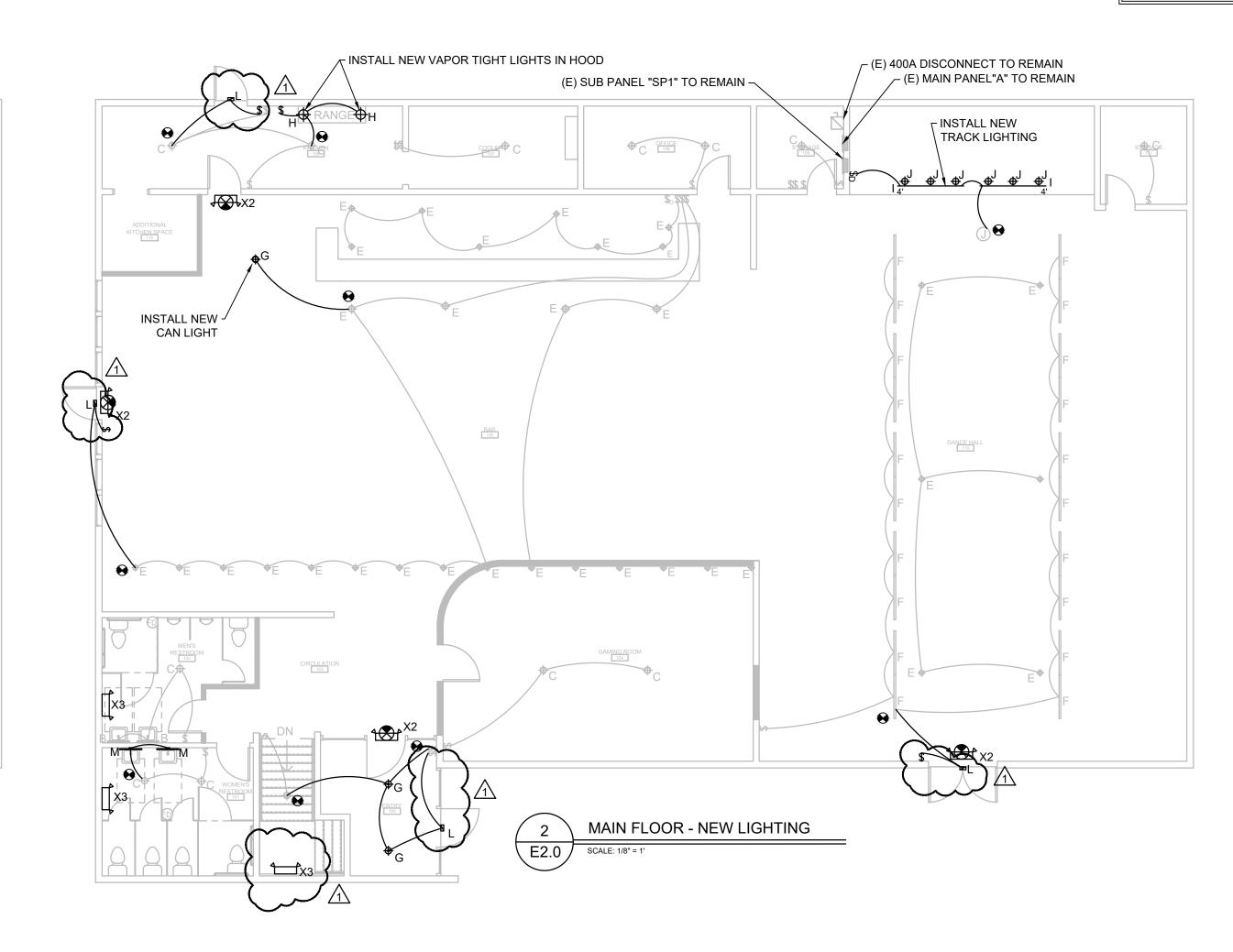
Revisions:

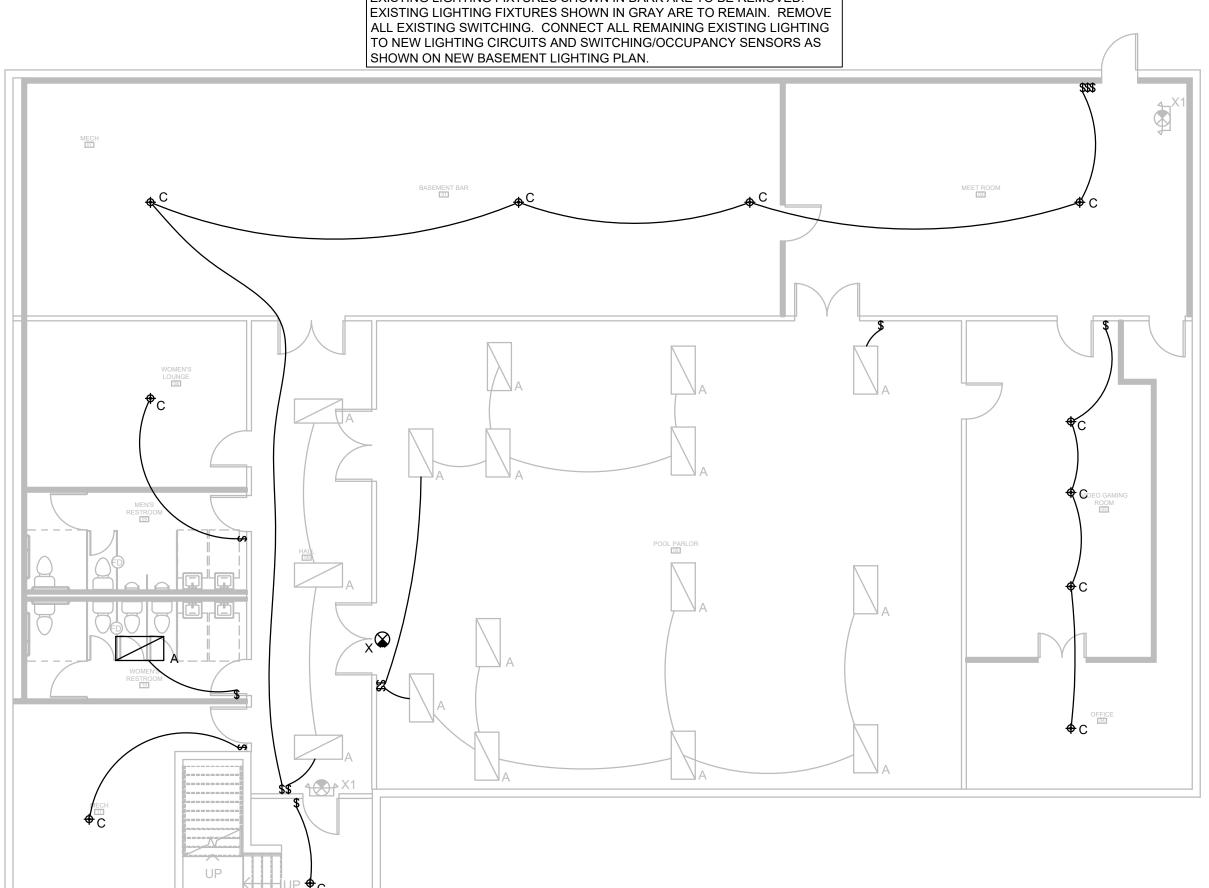
# Description1 AHJ Review

on Date ew 04-26-22

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04/26/2022 BUILDING DIVISION CITY OF HELENA





BASEMENT LIGHTING DEMOLITION GENERAL NOTE:

EXISTING LIGHTING FIXTURES SHOWN IN DARK ARE TO BE REMOVED.

MAIN FLOOR - LIGHTING DEMOLITION

(E) MAIN PANEL "A" TO REMAIN — (E) SUB PANEL "SP1" TO REMAIN —

RANGE

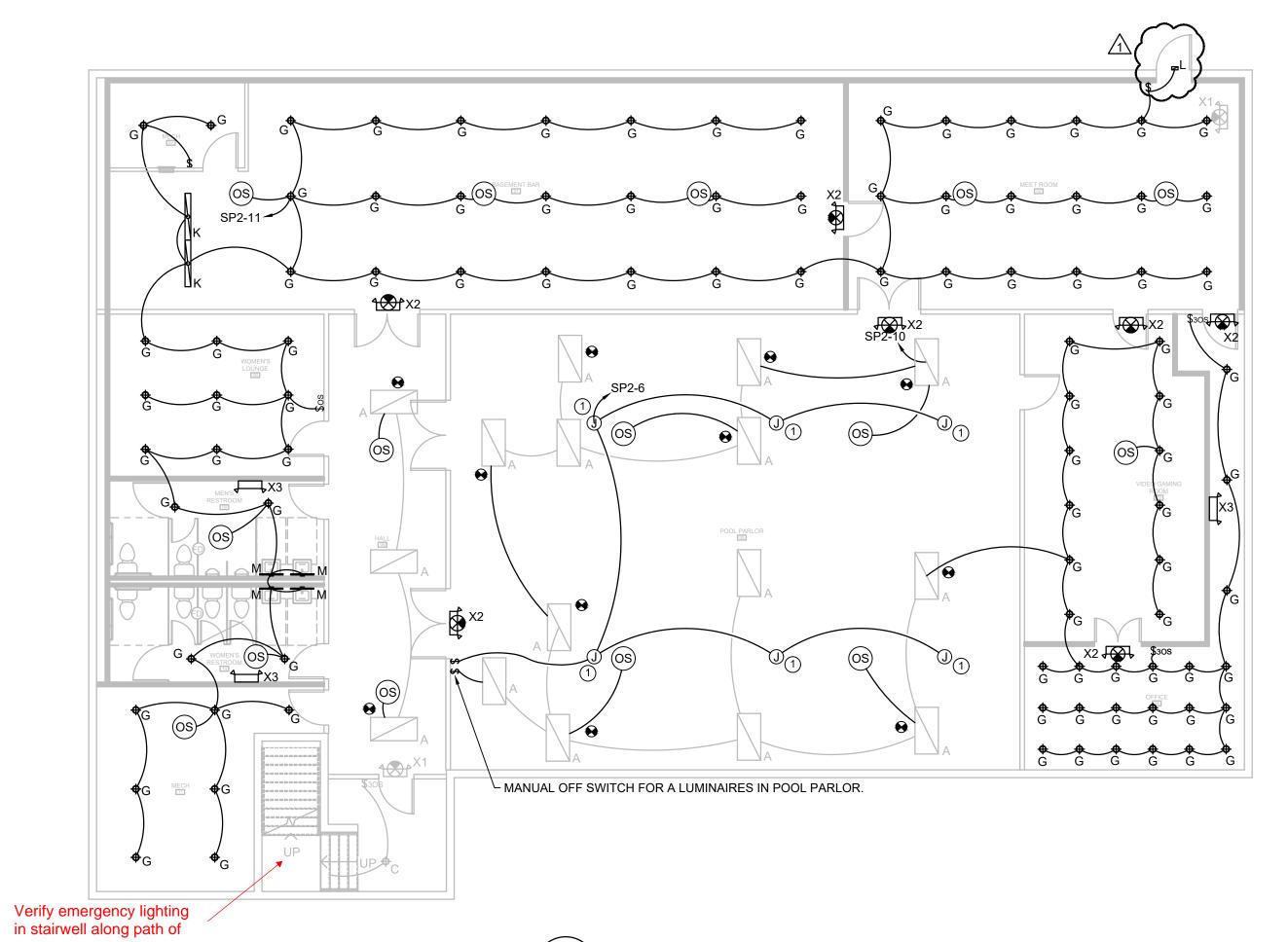
BAR 105

ADDITIONAL KITCHEN SPACE

ZREMOVE EXISTING EXIT SIGN (TYP)

/- (E) 400A DISCONNECT TO REMAIN

DANCE HALL



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# THE LUX NIGHTCLUB 801 NORTH FEE STREET HELENA, MONTANA

Project Number: Issued for Permit:

LIGHTING PLANS

E 2.0

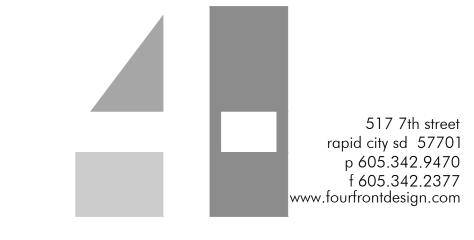
22.2620.M01

4/8/2022

BASEMENT - LIGHTING DEMOLITION
E2.0 SCALE: 1/8" = 1'

4 BASEMENT - NEW LIGHTING
E2.0 SCALE: 1/8" = 1'

FIRE ALARM SCHEMATIC DRAWING SHOWS THE MINIMUM REQUIREMENTS FOR A NEW FIRE ALARM SYSTEM MEETING IBC VERSION 2018 BASED ON A GROUP B OCCUPANCY THAT IS FULLY SPRINKLED. IT WILL BE THE REQUIREMENT OF THE CONTRACTOR TO PROVIDE A DEFERRED SUBMITTAL FOR A COMPLETE CODE COMPLIANT PLAN AND INSTALLATION SUBJECT TO INSPECTION AND APPROVAL BY AHJ.





**RESUBMITTAL** 

04/26/2022

**BUILDING DIVISION** 

**CITY OF HELENA** 

Description

**AHJ Review** 

Date

04-26-22

**City Fire Department Comments:** 

1.FIRE: All work is subject to field verification and additional items may need to be added, corrected, moved or deleted. Please call the Building Division to schedule all final inspections. 2.FIRE: Separate permits from the City of Helena Building Division Revisions: for the fire alarm and fire sprinkler systems. Prior to any work, the permit, stamped set of plans and third party review comments must be on site. If there are any changes to either system the design professional must provide an email to the Fire Marshal for documentation.

3.FIRE: Every area containing fire protection, fire detection, utilities, or other equipment used during emergency operations shall be clearly identified. Signage shall be of a durable material, permanently installed, and have a red background with white 1 ½

4.FIRE: Fire extinguishers placed per 2012 International Fire Code (IFC) section 906 and National Fire Protection Association (NFPA)

5.FIRE: Applicable sections of 2012 International Fire Code (IFC), Chapter 33 "Fire Safety during Construction and Demolition" 6.FIRE: The site must remain accessible to all emergency services during construction. Please post after hours contact numbers at the job trailer in case of emergency.

7.FIRE: For any welding or hot work ensure all applicable sections of 2012 IFC, Chapter 35 "Welding and other Hot work" is in place. 8.FIRE: The address posted per 2012 IFC, section 505. The numbers must contrast with the background and must be clearly visible from the street.

9.FIRE: For Fire Department Access, this project must meet all requirements in the 2012 International Fire Code (IFC), Chapter 5, section 503 and associated appendices. If there are any additions, deletions, changes or conflicts, please contact the HFD Fire Marshal.

10.FIRE: A Knox box installed no higher than 5 feet from the ground at the front entrance.

11.FIRE: If more than 20 device changes, the fire sprinkler system plans must have a third party review. A licensed contractor must install the system and they must meet all applicable codes and standards including but not limited to NFPA 13 and 2012 IFC,

Chapter 9. 12.FIRE: The fire alarm system must be third party reviewed. It must be installed by a licensed contractor and all applicable codes and standards including, but not limited to NFPA 72 and 2012 IFC Chapter 9 requirements in affect.

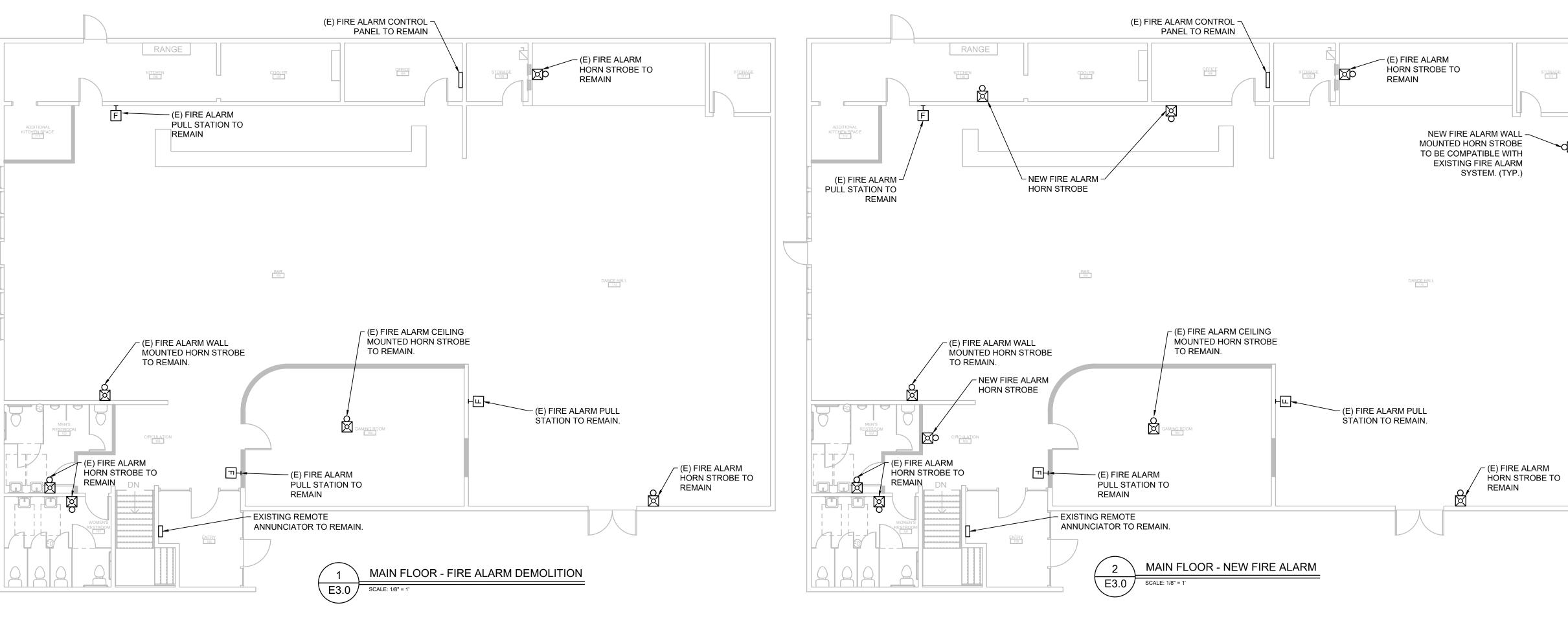
13.FIRE: The as-built for the fire alarm and fire sprinkler system must be in a documentation box at the fire alarm control panel. 14.FIRE: Using Chapter 4 in the 2012 IFC, an emergency/evacuation plan must developed for this occupancy. This plan must include training and drills. The plan must be in place by final construction inspection for the building. 15.FIRE: The occupant load posted per 2012 IFC, section 1004.3.

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## THE LUX NIGHTCLUB 801 NORTH FEE STREET HELENA, MONTANA

22.2620.M01 Project Number: Issued for Permit 4/8/2022

FIRE ALARM PLANS



Third party review by a licensed Fire Protection Engineer (FPE) will be required for modifications to 20 or more devices. Devices include; panels, manual pull stations, notification and detection devices and sprinkler heads.

If less than 20 devices are modified, then a third part review will not be required and fire alarm/sprinkler plans shall be submitted directly to the building department for review.

