

Approval of submitted plans is not an approval of omissions or oversights by this office or noncompliance with any applicable regulations of local government. The contractor is responsible for making sure that the building complies with all applicable codes and regulations of the local government.

**City of Puyallup
Building
APPROVED**

See permit for additional requirements.

JMontgomery
11/03/2023
3:22:41 PM



FULL SIZED LEDGIBLE COLOR PLANS ARE REQUIRED TO BE PROVIDED BY THE PERMITTEE ON SITE FOR ALL INSPECTIONS (MIN. PLAN SIZE 24" X 36")

REFERENCE STRUCTURAL CALCULATIONS FOR EQUIPMENT BEING INSTALLED ON ROOF FOR INSTALLATION AND INSPECTIONS.

INTAKE HOOD SCHEDULE

ID	BRAND NAME	MODEL NUMBER	CFM	FT./MIN.	SP.	V/PH
IH-1	ILG	ARVE20	3,500	688	.107"	208/1
IH-2	ILG	ARVE20	3,500	688	.107"	208/1

FAN SCHEDULE

ID	BRAND NAME	MODEL NUMBER	CFM	SP	HP/AMP	FLOW	V/PH	DUCT	LOCATION	WEIGHT
EF-1	DELHI	BR-22RM	5,550	5"	3 HP	CV	460/3	22"	ROOF	420 LBS
EF-2	DELHI	BR-22RM	5,550	5"	3 HP	CV	460/3	22"	ROOF	420 LBS
EF-3	DELHI	BR-22RM	7,000	5"	3 HP	CV	460/3	22"	ROOF	420 LBS

ERV (DOAS) SCHEDULE

ID	BRAND NAME	MODEL NUMBER	FAN SPEED	CFM	SP	HP/AMP	V/PH	SOUND RATING	LOCATION	WEIGHT
ERV-1	DAIKIN	VAM300GVJU	L	90	.64"	1.6 A	208/1	37 dB	ABOVE ACT CEILING	71 LBS
ERV-2	DAIKIN	VAM300GVJU	L	130	.64"	1.6 A	208/1	37 dB	ABOVE ACT CEILING	71 LBS
ERV-3	DAIKIN	VAM300GVJU	L	170	.64"	1.6 A	208/1	37 dB	ABOVE ACT CEILING	71 LBS

VRF INDOOR HEAT PUMP SCHEDULE

ID	BRAND NAME	MODEL NUMBER	AREA SERVED	SUCTION LINE	LIQUID LINE	RATED CAPACITY (BTU/HR)		CFM	S.P.	ELECTRICAL			WEIGHT (LBS)
						HEATING	COOLING			V/PH	MCA	MOCP	
FCU-1	DAIKIN	40VMC012A--3	ENGINE TEST OFFICE(MOD 4)	1/2"	1/4"	13,000	12,170	359	-	208/230/1	.53	15.0	43 LBS
FCU-2	DAIKIN	40VMC009A--3	MOD 4 STORAGE	1/2"	1/4"	10,000	9,130	306	-	208/230/1	.38	15.0	40 LBS
FCU-3	DAIKIN	40VMM030A--3	ENGINE TEST OFFICE(MOD 6)	5/8"	3/8"	34,000	30,000	1,070	.6"	208/230/1	3.13	15.0	124 LBS
FCU-4	DAIKIN	40VMM030A--3	ENGINE TEST OFFICE(MOD 6)	5/8"	3/8"	34,000	30,000	1,070	.6"	208/230/1	3.13	15.0	124 LBS
FCU-5	DAIKIN	40VMC009A--3	MOD 6 STORAGE	1/2"	1/4"	10,000	9,130	306	-	208/230/1	.38	15.0	40 LBS

SPLIT SYSTEM HEAT PUMP SCHEDULE

ID	BRAND NAME	MODEL NUMBER	COOLING(BTUH)		HEATING(BTUH)		LIQUID LINE	SUCTION LINE	IEER	EER	COP	VOLTAGE/PHASE	MCA	MOCP	WEIGHT	LOCATION & NOTES
			NOMINAL	RATED	NOMINAL	RATED										
OHP-1	CARRIER	38VMA096RDL6-1	96,000	-	108,000	-	3/8"	7/8"	23.0	11.8	3.63	460/3	46	50	659 LBS	ROOF

NOTE: These plans are diagrammatical only. Please verify all dimensions at job site.

PRMH20231156

HVAC ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
BDD	BACKDRAFT DAMPER
BTUH	BRITISH THERMAL UNIT PER HOUR
CD	CEILING DIFFUSER
CFM	CUBIC FEET PER MINUTE
CU	CONDENSING UNIT
DB	DECIBEL
DH	DUCT HEATER
DOAS	DEDICATED OUTSIDE AIR SYSTEM
DN	DOWN
EC	EVAPORATOR COIL
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EG	EXHAUST GRILLE
ERV	ENERGY RECOVERY VENTILATOR
ESP	EXTERNAL STATIC PRESSURE
EXH	EXHAUST
FCU	FAN COIL UNIT
FD	FIRE DAMPER, FLOOR DRAIN
FPM	FEET PER MINUTE
FSD	FIRE AND SMOKE DAMPER
GA	GAUGE
GF	GAS FURNACE
GRD	GRILLE, REGISTER, DIFFUSER
HP	HORSEPOWER, HEAT PUMP
ID	INSIDE DIMENSION
IHP	INDOOR (SECTION) HEAT PUMP
IRH	INFRARED HEATER
KW	KILOWATT
MBH	THOUSAND BTU PER HOUR
MCD	MOTORIZED CONTROL DAMPER
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER
OD	OUTSIDE DIMENSION OR DIAMETER
OHP	OUTDOOR HEAT PUMP
OSA	OUTSIDE AIR
OSCI	OWNER SUPPLIED CONTR. INSTALLED
POC	POINT OF CONNECTION
RA	RETURN AIR
RAG	RETURN AIR GRILLE
RPM	REVOLUTIONS PER MINUTE
RTU	ROOFTOP UNIT
SA	SUPPLY AIR
SG	SUPPLY GRILLE
SP	STATIC PRESSURE
SSG	SIDEWALL SUPPLY GRILLE
TBD	TO BE DETERMINED
TG	TRANSFER GRILLE
TYP	TYPICAL
UH	UNIT HEATER
VFD	VARIABLE FREQUENCY DRIVE
VTR	VENT TO ROOF
VVT	VARIABLE VOLUME AND TEMPERATURE

HVAC LEGEND

	INLINE EXHAUST FAN(S)
	ROOFTOP EXHAUST FAN
	SIDEWALL EXHAUST FAN
	VAV FAN BOX
	CEILING EXHAUST FAN
	GAS METER
	VVT DAMPER
	THERMOSTAT
	T-BAR SUPPLY DIFFUSER
	T-BAR RETURN GRILLE
	HARDLID SUPPLY DIFFUSER
	HARDLID RETURN GRILLE
	FIRE DAMPER
	FIRE SMOKE DAMPER
	VOLUME DAMPER
	SMOKE DETECTOR
	FLEXIBLE DUCT SA/RA
	ROUND DUCT UP
	ROUND DUCT DOWN
	DIFFUSER TAG

HVAC NOTES

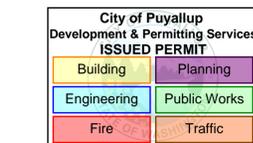
- DUCT INSULATION TO MEET THE REQUIREMENTS OF SECTION C403.10 OF THE 2018 WSEC AND SECTION 604 OF THE IECC (INTERNATIONAL ENERGY CONSERVATION CODE).
- SMOKE DETECTOR(S) INSTALLED IN MAIN RETURN AIR DUCTS PER SECTION 606 OF THE 2018 IMC. HVAC SMOKE DETECTORS SHALL SHUT DOWN POWER TO THE UNIT UPON ACTIVATION AND A "SUPERVISORY" ZONE SHALL BE INITIATED AT FIRE ALARM PANEL UPON SMOKE DETECTOR ACTIVATION. 2018 IMC SECTION 606.4 & 604.6.1.
- SUPPLY & RETURN AIR DUCT IS MIN. R-6 IN UNCONDITIONED SPACES & MIN. R-8 WHEN LOCATED OUTSIDE OF BUILDING AS PER THE 2018 WSEC C403.10.1.2.
- ALL SINGLE PACKAGE HVAC UNITS SHALL BE INSTALLED WITH ECONOMIZERS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS PER 2018 IMC, SECTION 403 AND SHALL OPERATE PER 2018 WSEC, SECTION C403.5.1.
- EQUIPMENT INSTALLATION INSTRUCTIONS TO BE ON-SITE FOR INSPECTIONS.
- ALL HVAC EQMT. TO BE LABELED TO THE SPACE SERVED.
- DUCTS TO BE SUPPORTED AT EACH DIRECTION CHANGE VERTICAL AT 12'-0" MAX., HORIZONTAL AT 10'-0" MAX. WITH STRAP, OR 8'-0" MAX. TRAPEZE SUPPORT.
- THERMOSTAT TO BE SEVEN-DAY TYPE AND HAVE NIGHT SETBACK WITH 5 DEGREE DEADBAND.
- THE HVAC INSTALLATION SHALL BE COMPLETE WHEN ALL SECTIONS OF 2018 WSEC C408 HAVE BEEN SATISFIED. THIS SHALL INCLUDE AS-BUILT DRAWINGS, SUBMITTALS, O&M MANUALS, SYSTEM BALANCE REPORT, AND A COMMISSIONING REPORT.
- DUCT SEALING SHALL MEET REQUIREMENTS OF 2018 WSEC C403.10.2. DUCT WORK WHICH IS DESIGNATED TO OPERATE AT PRESSURES ABOVE 1/2" WATER COLUMN STATIC PRESSURE SHALL BE SEALED AS FOLLOWS:
 - STATIC PRESSURE 1/2 INCH TO 2 INCHES: SEAL ALL TRANSVERSE JOINTS AND LONGITUDINAL SEAMS. SPIRAL LOCK SEAMS IN ROUND AND FLAT OVAL DUCT WORK DO NOT REQUIRE SEALING; HOWEVER, OTHER SEAMS SHALL BE SEALED.
 - 2018 WSEC FORMS, DUCT PLANS, BALANCING FEATURES, AS WELL AS VENTILATION REQUIREMENTS (AS PER TABLE 403.3.1.1, 2018 IMC MINIMUM VENTILATION RATES) AND OCCUPANCY, ALONG WITH A MECHANICAL PERMIT AT THE TIME OF THE TENANT IMPROVEMENT PERMIT.

SCOPE OF WORK JOB# 23101

- INSTALL (3) ENERGY RECOVERY VENTILATORS.
- INSTALL (3) ROOFTOP EXHAUST BLOWERS.
- INSTALL (1) OUTDOOR SECTION HEAT PUMP UNIT.
- INSTALL (5) INDOOR FAN COIL UNITS.
- INSTALL DUCTWORK, GRILLES & REGISTERS.
- INSTALL (2) INTAKE AIR HOODS.

ZONE LOAD CALCULATIONS:

	Rp - CFM PER PERSON		Ra - CFM PER SQ FT		DELIVERED
	Pz - # OF PEOPLE/1,000 SQ FT		Az - SQ FT OF ROOM		
Vbz = (Rp x Pz) + (Ra x Az)					
ZONE 1:	5	8	0.06	800	
WARRANTY/Q/A AREA	40		48	Vbz= 88	90
ZONE 2:	5	10	0.06	1200	
BRAZING STATIONS	50		72	Vbz= 122	135
ZONE 3:	5	10	0.06	1900	
DETAILED ASSEMBLY	50		114	Vbz= 164	170

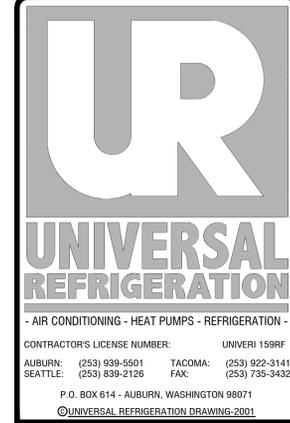


10/24/2023

EXPIRES JULY 18, 2024



PENDING CITY APPROVAL



REV.	DATE	REVISION DESCRIPTION
1	6/28/23	PERMIT ISSUE
2	8/11/23	COMMENT REVISIONS
3	10/18/23	PERMIT REVISION

PROJECT TITLE:
RED DOT T.I. - PUYALLUP LOGISTICS

2504 EAST MAIN AVE. PUYALLUP, WA. 98372

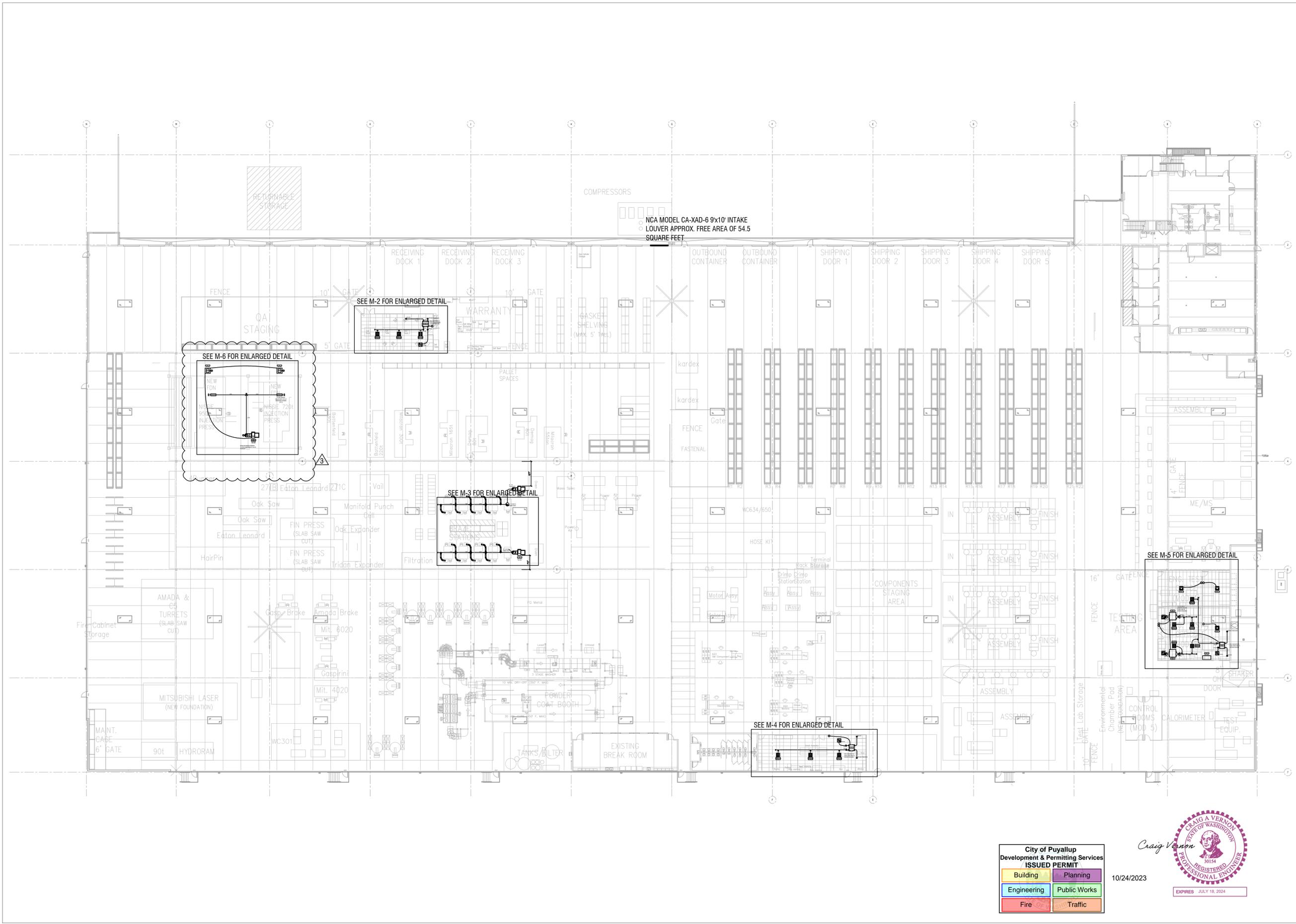
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SHEET NUMBER:	

M-C



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City of Puyallup
Development & Permitting Services
ISSUED PERMIT

Building	Planning
Engineering	Public Works
Fire	Traffic

Craig Vernon
10/24/2023
REGISTERED PROFESSIONAL ENGINEER
30154
EXPIRES JULY 18, 2024

AREA OF WORK
SCALE: NOT TO SCALE

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M-1



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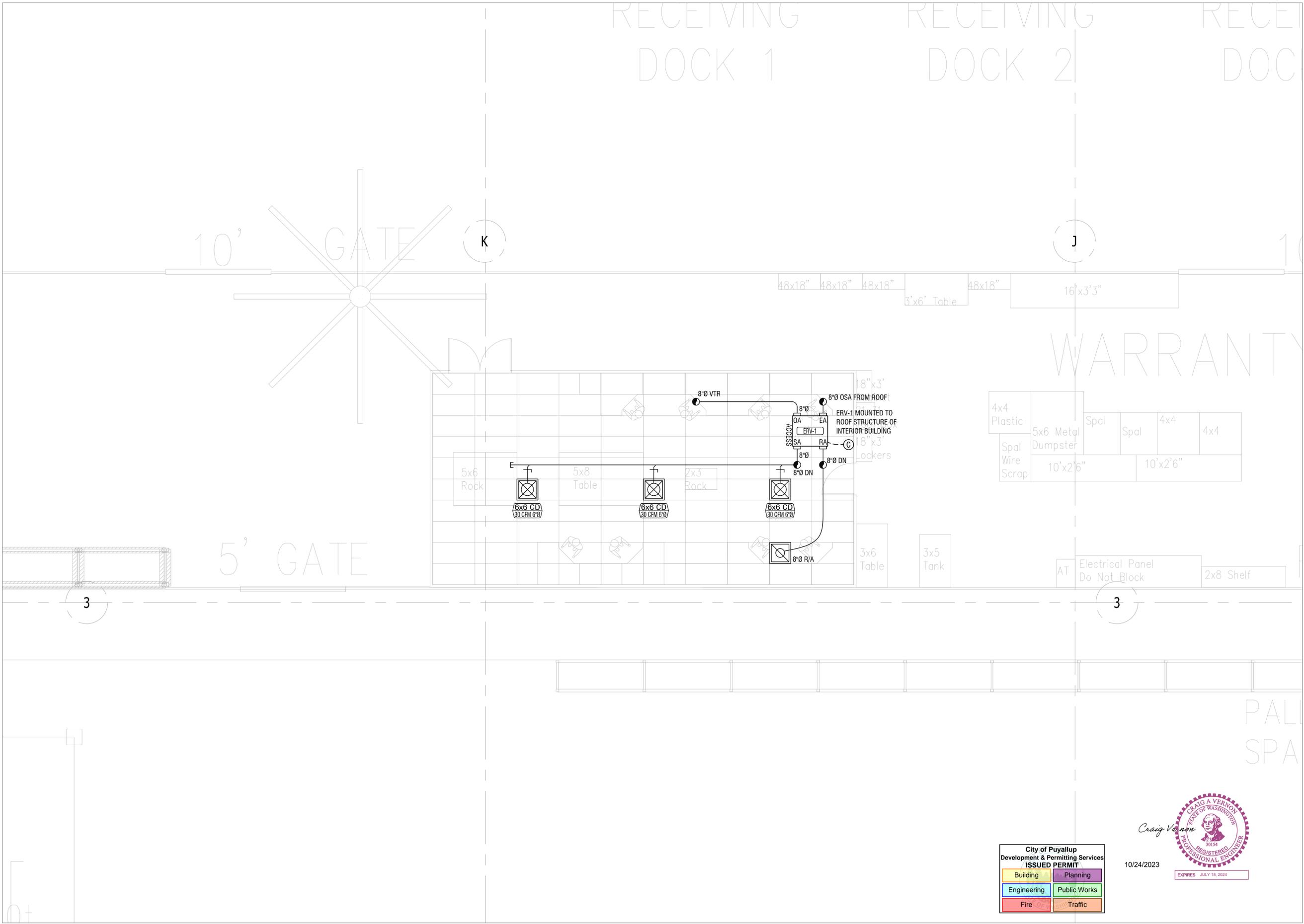
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M-2



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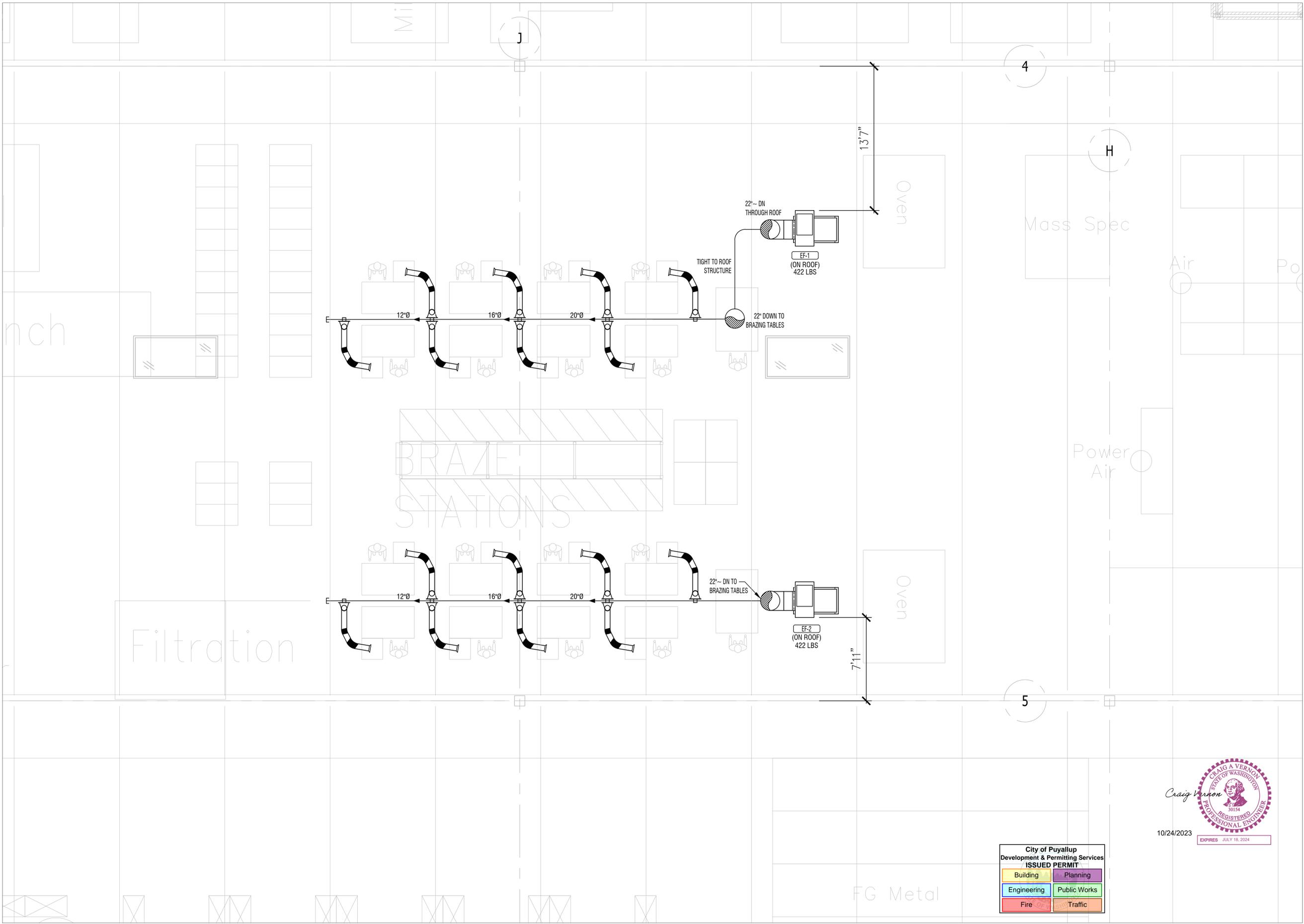
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WARRANTY/Q/A AREA HVAC PLAN
SCALE: 1/4" = 1'-0"

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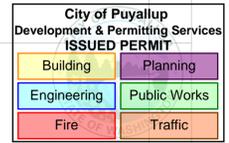
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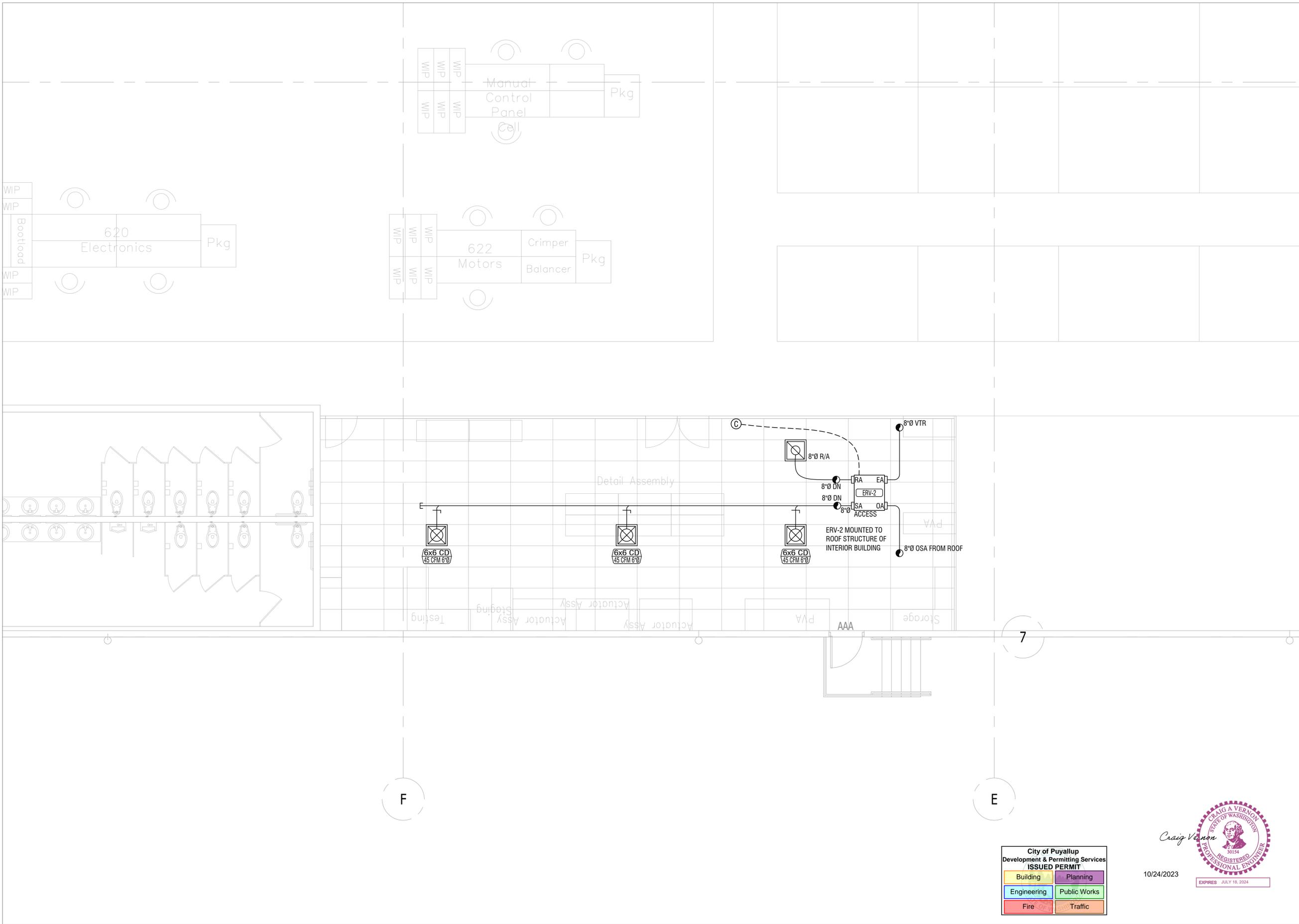
BRAZING STATIONS HVAC PLAN
 SCALE: 1/4" = 1'-0"

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M-3



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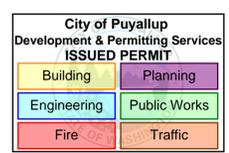
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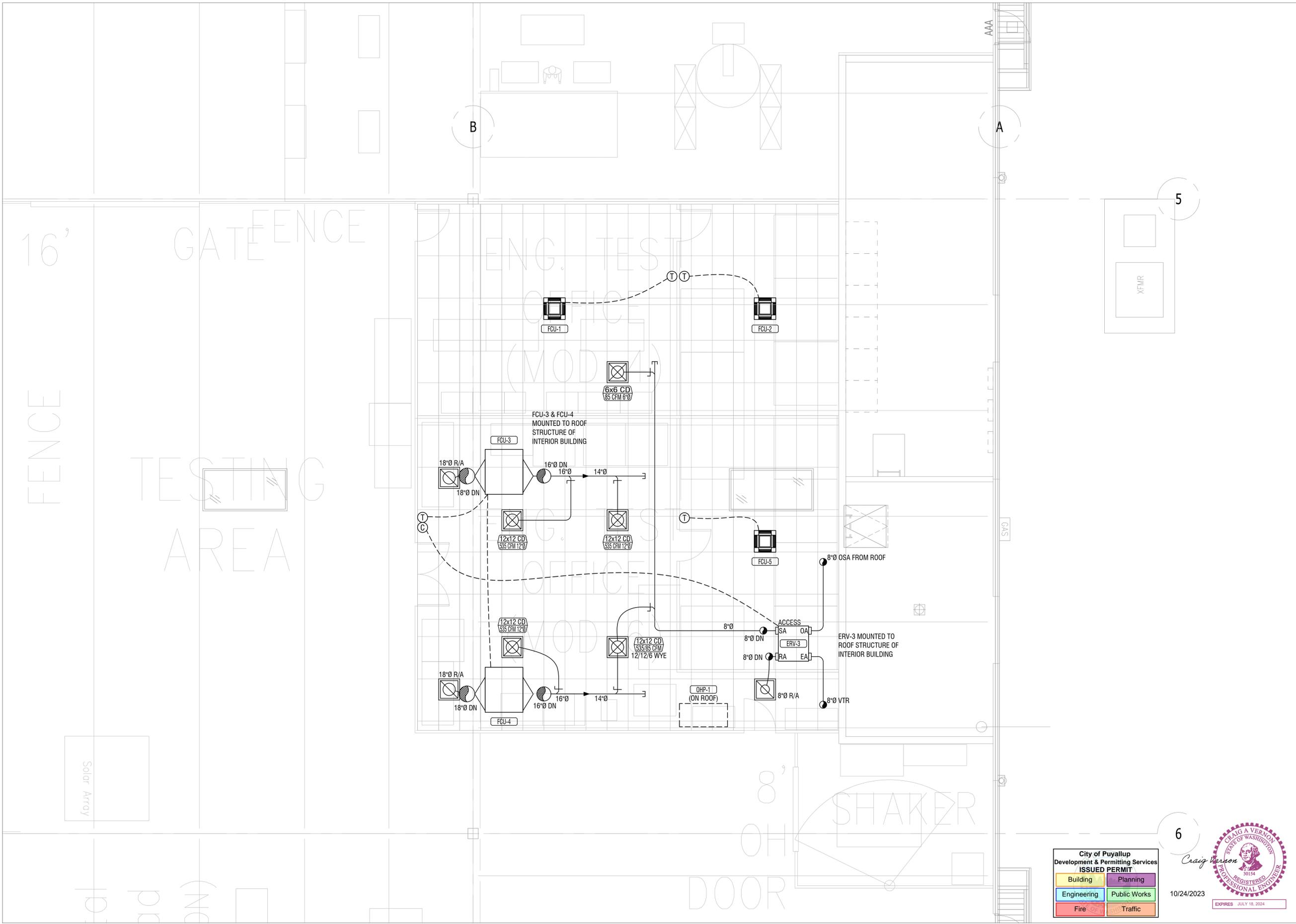
DETAILED ASSEMBLY HVAC PLAN
 SCALE: 1/4" = 1'-0"

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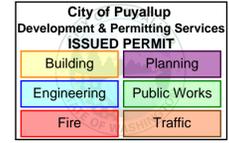
M-4



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ENGINE TESTING AREA HVAC PLAN
SCALE: 1/4" = 1'-0"



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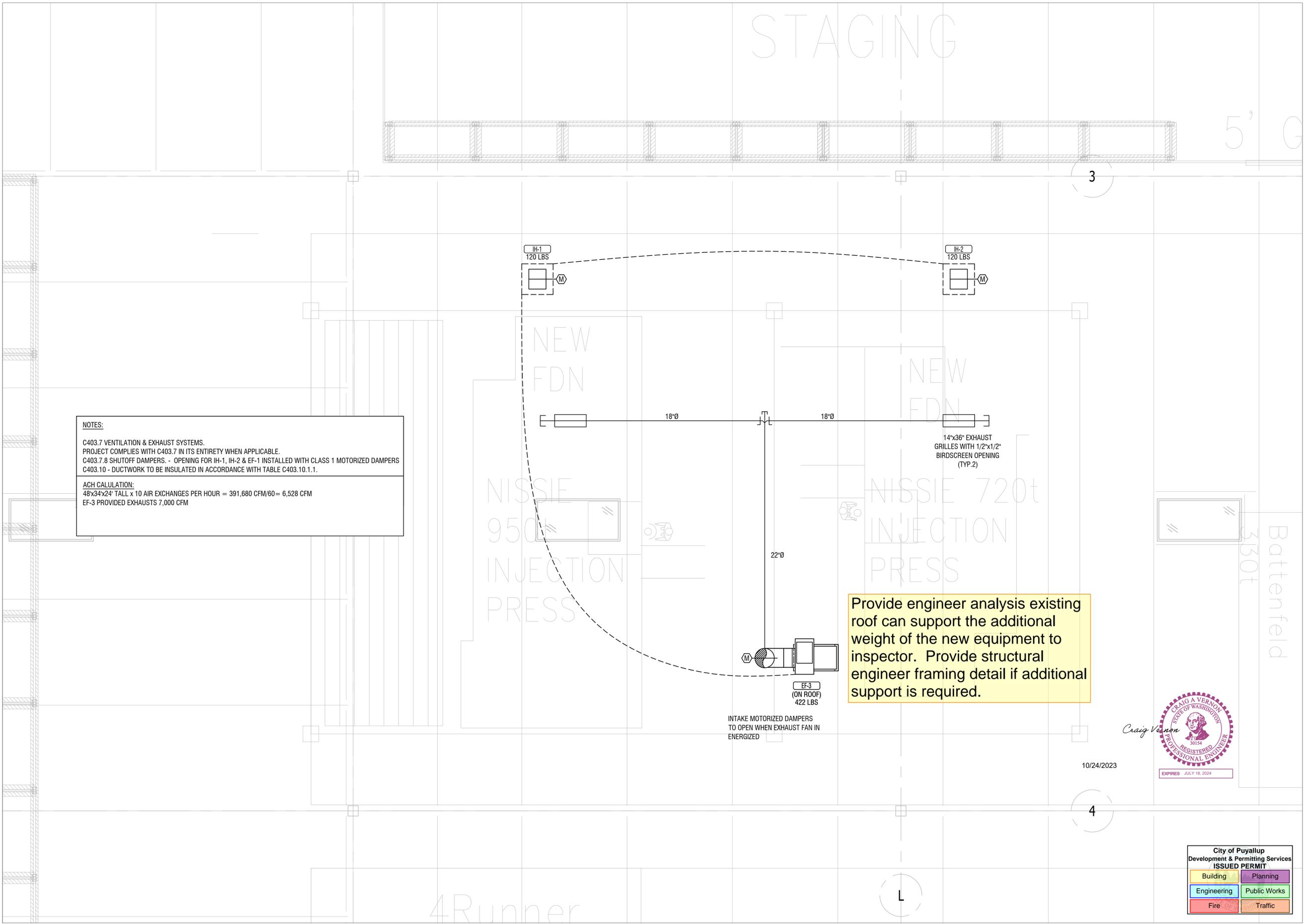
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M-5



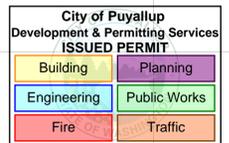
NOTES:
 C403.7 VENTILATION & EXHAUST SYSTEMS.
 PROJECT COMPLIES WITH C403.7 IN ITS ENTIRETY WHEN APPLICABLE.
 C403.7.8 SHUTOFF DAMPERS - OPENING FOR IH-1, IH-2 & EF-1 INSTALLED WITH CLASS 1 MOTORIZED DAMPERS
 C403.10 - DUCTWORK TO BE INSULATED IN ACCORDANCE WITH TABLE C403.10.1.1.

ACH CALCULATION:
 48'x34'x24' TALL x 10 AIR EXCHANGES PER HOUR = 391,680 CFM/60 = 6,528 CFM
 EF-3 PROVIDED EXHAUSTS 7,000 CFM

Provide engineer analysis existing roof can support the additional weight of the new equipment to inspector. Provide structural engineer framing detail if additional support is required.



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M-6

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