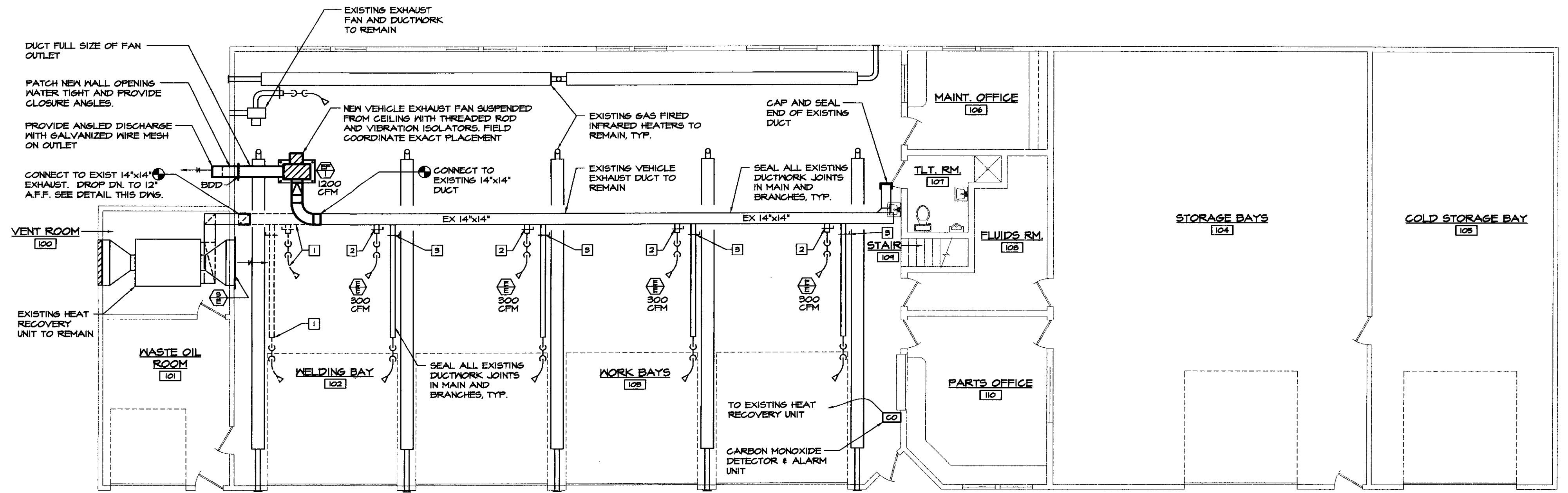
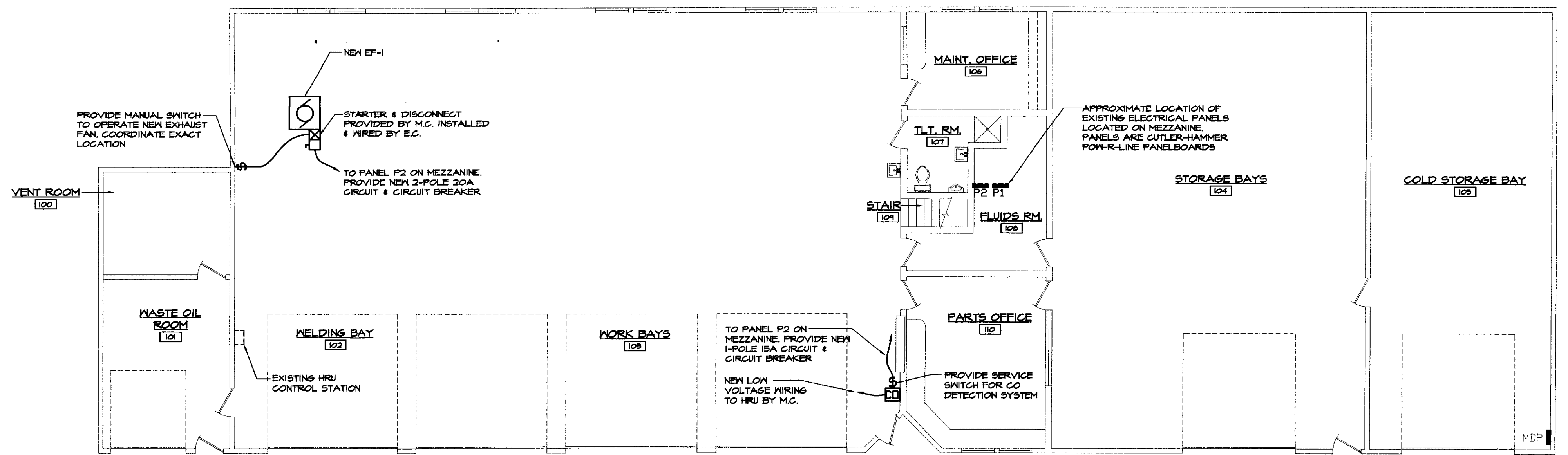


**MECHANICAL LEGEND & ABBREVIATIONS**

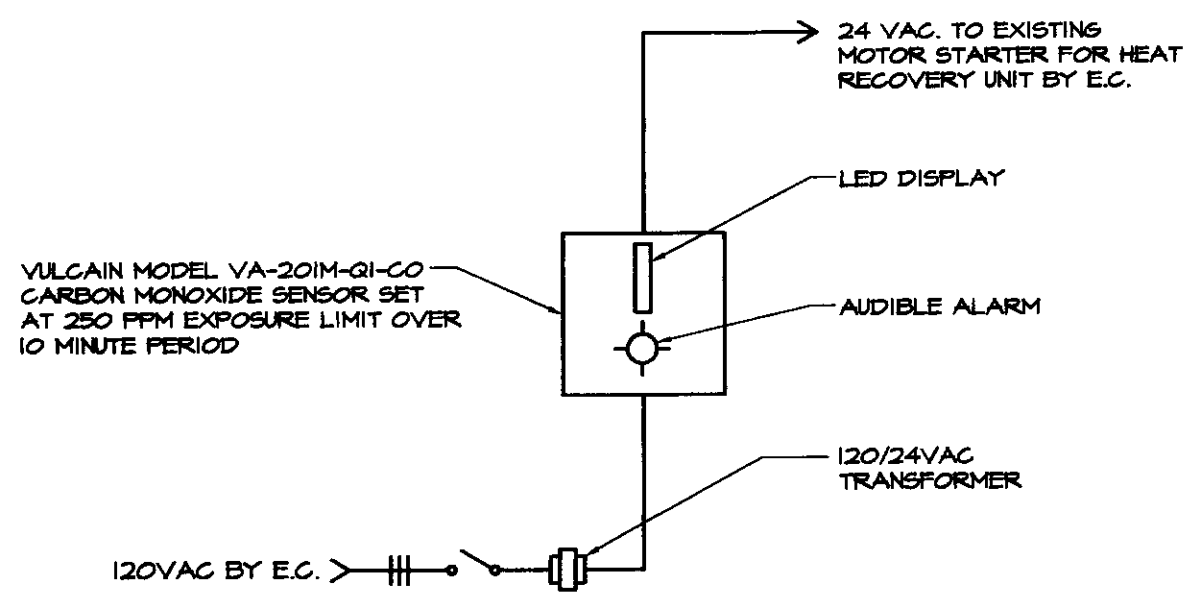
	NEW DUCTWORK		MOTORIZED DAMPER
	EXISTING DUCTWORK		CARBON MONOXIDE SENSOR
	EXISTING DUCTWORK TO BE REMOVED	A.P.	ACCESS PANEL
	SUPPLY DUCT DOWN	A.F.F.	ABOVE FINISHED FLOOR
	SUPPLY DUCT UP	E.C.	ELECTRICAL CONTRACTOR
	RETURN DUCT DOWN	G.C.	GENERAL CONTRACTOR
	RETURN DUCT UP	NC	NORMALLY CLOSED
	SQUARE TO ROUND TRANSITION	NO	NORMALLY OPEN
	SQUARE ELBOW WITH TURNING VANES		EXHAUST GRILLE
	FLEXIBLE DUCT CONNECTOR		EXHAUST FAN
	AIR FLOW INDICATOR		LOUVER
	THERMOSTAT, SUBSCRIPTS: E = 120V ELECTRIC, # = ZONE		AIR HANDLING UNIT
	SPACE SENSOR		CONNECT TO EXISTING
	BLAST GATE VOLUME DAMPER		DRAWING NOTE TAG



**FIRST FLOOR PLAN - MECHANICAL**  
SCALE: 1/8"=1'-0"



**FIRST FLOOR PLAN - ELECTRICAL**  
SCALE: 1/8"=1'-0"



**GARAGE CARBON MONOXIDE DETECTION SYSTEM SCHEMATIC**  
NOT TO SCALE

**DRAWING NOTES**

- REMOVE EXISTING VEHICLE EXHAUST DUCTWORK AND ALL ASSOCIATED SPECIALTIES SHOWN DASHED.
- EXISTING VEHICLE EXHAUST BRANCH TO REMAIN. ADJUST EXISTING BLAST GATE TO OBTAIN SPECIFIED CFM.
- EXISTING VEHICLE EXHAUST BRANCH TO REMAIN. CLOSE BLAST GATE TIGHT TO ELIMINATE AIR FLOW.

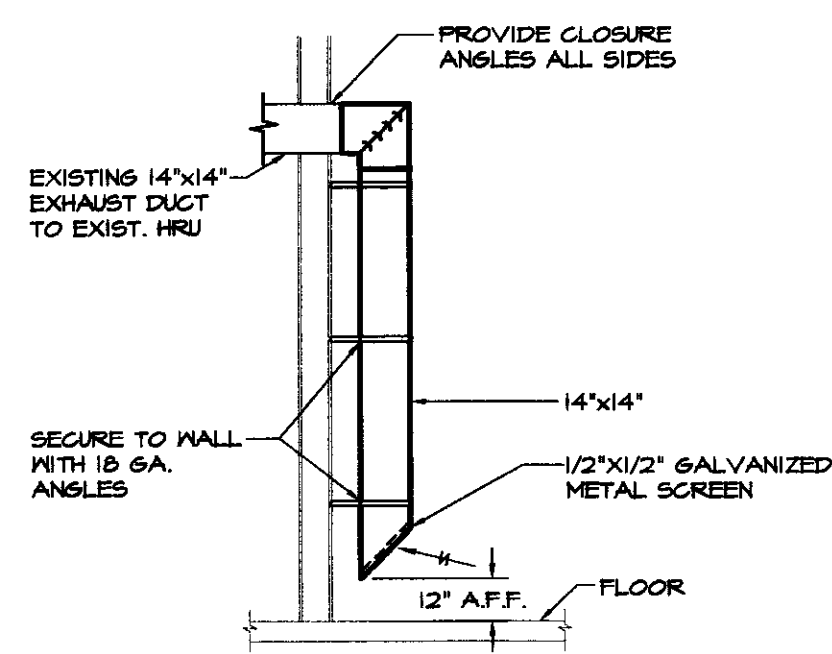
**MATERIAL SPECIFICATIONS**

**AIR DISTRIBUTION SYSTEMS:** SHALL BE CONSTRUCTED FOR 2" M.S. PRESSURE CLASS PER SMACNA DUCT CONSTRUCTION STANDARDS. DUCT GAUGES, REINFORCEMENT METHODS, JOINT CONSTRUCTION AND INTERMEDIATE REINFORCEMENT METHODS SHALL MEET SMACNA STANDARDS FOR 2" M.S. POSITIVE OR NEGATIVE PRESSURE. SUBMIT CONSTRUCTION METHODS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OF DUCT SYSTEMS. DUCTWORK SEALING METHODS FOR THESE SYSTEMS SHALL BE CLASS C SEAL FOR 2" M.S. AND UP. SEAL ALL TRAVERSE JOINTS.

**VEHICLE EXHAUST DUCTWORK:** SHALL BE EQUAL TO UNITED MCGILL, "UNI-SEAL" SPIRAL LOCKSTREAM, GALVANIZED STEEL DUCTWORK. FITTINGS SHALL BE UNITED MCGILL UNI-SEAL FITTINGS OR APPROVED EQUAL. DUCT GAUGES SHALL BE BASED ON UNITED MCGILL INDUSTRIAL DUCT AND FITTINGS DESIGNED FOR 10" NEGATIVE PRESSURE STANDARDS. EXPOSED DUCTWORK SHALL BE SEALED ON THE INTERIOR AND SHALL BE FREE FROM TOOL MARKS, DENTS, DISCS OR OTHER SURFACE IRREGULARITIES.

**EXHAUST FAN:** SHALL BE BELT DRIVEN BACKWARD INCLINED CLASS 1 BLOWERS AND SHALL INCLUDE ALL ACCESSORIES AS SCHEDULED. FAN PERFORMANCE RPM, BRAKE HORSEPOWER, AND TIP SPEED AS SCHEDULED SHALL NOT BE EXCEEDED. FANS SHALL HAVE ANCA CERTIFIED TEST RATINGS FOR BOTH AIR FLOW AND SOUND. FAN CURVES SHALL BE SUBMITTED FOR ALL UNITS. ALL UNITS SHALL BE UL LABELED. PROVIDE BLOWER PLATFORM, MOTOR STARTER AND DISCONNECT SWITCH. FANS TO BE MANUAL ON-OFF CONTROL.

**CARBON MONOXIDE DETECTOR:** EQUIPMENT TO BE AS INDICATED ON DETAIL. ALL EQUIPMENT AND COMPONENTS SHALL BE UL LISTED AND INSTALLED PER MANUFACTURERS INSTALLATION INSTRUCTIONS.



**RETURN DUCT DETAIL**  
NOT TO SCALE

**EXHAUST FAN SCHEDULE**

No.	MANUFACTURER	MODEL	CFM	E.S.P.	TYPE	RPM	MODEL			REMARKS
							H.P.	VOLT	PH	
EF-1	GREENHECK	SMB-12	1200	3.5	UTILITY	2944	1 1/2	240	1	NOTE 1

NOTES:  
1) PROVIDE FAN ACCESS DOOR, BELT GUARD, BACK DRAFT DAMPERS, ISOLATORS, HEAT SLINGER/SHAFT SEAL, TOTALLY ENCLOSED MOTOR, ALUMINUM FAN WHEEL, MOTOR STARTER AND DISCONNECT.

ELECTRICAL ENGINEERING PROVIDED BY ALLEN GOULD P.E. PEARSON ASSOCIATES, STOWE, VT.

NO.	ISSUED FOR	DATE
1	BIDDING	04/2004

**LANE ASSOCIATES**  
CONSULTING ENGINEERS, P.C.

HEATING, VENTILATION, & AIR CONDITIONING, PLUMBING, FIRE PROTECTION, & ELECTRICAL.  
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**MECHANICAL SYSTEM MODIFICATIONS**

STATE OF VERMONT A.O.T.  
DISTRICT 9 SERVICE GARAGE  
DERBY, VERMONT

APPR: DWD DRAWN: TDL SCALE: AS NOTED PROJ. NO. 0312-13

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